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**Report by the expert group on possible adverse effects
and associated costs of drug control policies**

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Foreword

Evaluation is an integral part of a good governance approach to public policy. This principle applies equally to the component of drug policy designed to counter the availability of and access to illicit drugs. Estimation or full costing of drug-related public investment – including both direct expenditure and also indirect costs and impact on public resources – should therefore be a key objective of any evaluation.

To evaluate and improve drug policy, it is imperative to know and take note of all possible effects of different interventions and actions. All policies, regardless of purpose or intention, come with a risk of unintended consequences.

Public expenditure estimates can be used as a tool for assessing whether the expected or desired results of the policy in question are actually reflected in action, and they constitute a necessary tool for implementing thorough policy evaluations. Public expenditure studies should mirror all relevant activities and policy approaches and may be particularly appropriate in times of austerity.

Accurate estimates of public spending will help policymakers plan relevant interventions and allocate necessary funds to authorities in charge of specific aspects of the policy's implementation. A thorough assessment of drug policy expenditures will also contribute to improved transparency and accountability of public institutions.

This publication brings together the findings of wider study conducted by the Pompidou Group in cooperation with the EMCDDA seeking to identify the unintended effects and associated costs of drug control policies. The aim of this publication is threefold. First, increase international awareness about the importance of estimating public expenditure on supply reduction initiatives. Second, stress the importance of harmonizing definitions and increasing availability, comparability and reliability of data as well as methods for sound estimates. Third, contribute to developing sound estimation practices to obtain accurate, complete and reliable drug policy evaluations.

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Chapter 1

Introduction

There is broad consensus that one overall aim of drug policy is to advance the health and welfare of mankind and reduce the individual and public health-related, social and safety problems resulting from the abuse of narcotic drugs and psychotropic substances (1). At the UN General assembly in April 2016, Heads of State and Governments reaffirmed their determination to prevent and treat the abuse of such substances and prevent and counter their illicit cultivation, production, manufacturing and trafficking. Despite this general understanding, the design and content of national drug policies vary to a large extent. The variation partly reflects differences in the nature of national drug problems and the resources allocated to this policy field, but also reflects ideological differences in how governments respond to drug problems.

In line with much of the academic literature (2), this report uses the term “drug policy” as to include governmental policies on prevention, enforcement, treatment, harm reduction and social reintegration. The policies include laws and programs intended to influence drug use and its consequences for users and society. National *drug control policy* constitutes one subset of drug policies and is based on three internationally agreed conventions, namely the 1961 Single Convention on Narcotic Drugs; the 1971 Convention on Psychotropic Substances; and the 1988 United Nations Convention Against Illicit Traffic in Narcotic Drugs. National legislations may introduce stricter domestic legislation than that demanded by the Conventions but they should not bring in more lenient legislation (3). Signing countries are obligated to make drug supply, i.e. production, sale, transport and distribution of drugs for non-medical purposes, a criminal act. The drug conventions further oblige states to ensure that possession of drugs, even in small quantities, shall be a punishable offence, though not necessarily a criminal offence. The Conventions offer alternatives to conviction or punishment, including treatment, education, aftercare, rehabilitation and social reintegration (4).

The overarching objective of *supply reduction policy* is a measurable reduction of the availability of illicit drugs and of associated crime. Elements central to

achieving this goal include disruption of illicit drug trafficking, dismantling of organised crime groups that are involved in drug production and trafficking, efficient use of the criminal justice system, effective intelligence-led law enforcement and increased intelligence sharing, and international collaboration to address large-scale, cross-border and organised drug-related crime (5). While the conventions treat the listed drugs similarly, national drug laws and enforcement practice often distinguish between types of drugs. The use, possession, sale and production of cannabis, for example, is in most countries regulated and enforced very differently from substances like amphetamines, cocaine or heroin. The intended effects of these legal responses, such as sentencing a drug dealer to prison, are twofold: first, to punish the offender and second, to deter the offender and others from committing similar crimes (the principles of punishment and deterrence).

Although supply-reducing interventions often constitute the dominant part of drug control policy, enforcement procedures against users often gain more public attention and disapproval, with criticism increasing in recent years. More and more often, loud voices are questioning the efficiency of drug control measures and some even claim that they are counterproductive (see e.g. Global commission of drugs, 2011 (6)). Unequal enforcement and disproportionate response have led to criticism of drug control efforts. The use of the death penalty in some countries is one extreme example of this, but less extreme cases in Europe have been a topic of discussion. The increased criticism of drug control efforts is one contributing factor to the recent changes introduced in drug regulations in many countries and jurisdictions.

The decriminalisation of drugs in Portugal and the Czech Republic, the recent legalisation of cannabis in eight US states, the state regulation of cannabis in Uruguay and the foreseen depenalization of cannabis in Canada are illustrations of a more liberal trend in drug control policies. The call for further humanisation and revision of drug control policies must be viewed in light of the increased focus on its adverse consequences.

Drug control policy has both domestic and international dimensions. Nationally, it includes factors such as (7): development of judicial frameworks; enforcement of anti-drug laws; eradication of drug production and cultivation; control of precursor chemicals; strengthening public institutions to avoid corruption and guarantee governability; customs inspections of commerce and persons entering the country and screening for drugs in prisons. Internationally, drug control policy includes elements like: development of judicial frameworks for international cooperation; creation of tools for international law enforcement cooperation; coordinated international investigations; control of precursor chemicals; anti-money-laundering initiatives; drug-crop substitution and eradication and initiatives against drug-related corruption, terrorism and human trafficking.

Drug control measures may be grouped according to whether they are targeting drug users or drug producers, traffickers and suppliers. In both cases, governments have obligations under international and national legal instruments to safeguard fundamental standards of human rights and the rule of law, which apply to drug offenders. These obligations are described by the Council of Europe (CoE) Convention for the Protection of Human Rights and Fundamental Freedoms, which guarantees (8):

- ▶ The right to life
- ▶ The right to protection of health
- ▶ The right to non-discrimination
- ▶ The prohibition of inhuman or degrading treatment

In addition, the rights are stated in:

Article 38.1 of the UN Single Convention on Narcotic Drugs, which requires States to pay special attention to and take all measures for the prevention of abuse of drugs and for the early identification, treatment, education, after-care, rehabilitation and social reintegration of persons dependent on drugs;

Article 25 of the Universal Declaration of Human Rights (UDHR), which guarantees everyone the right to a standard of living adequate for his health and well-being, including medical care and necessary social services;

Article 12 of the UN International Covenant on Economic, Social and Cultural Rights (ICESCR), which recognizes the right of everyone to the enjoyment of the highest attainable standard of physical and mental health; and requires States to assure medical service and medical attention is available equitably to all in need.

Article 11 of the CoE European Social Charter (revised), which provides for the right to protection of health and stipulates the effective exercise of the right to protection of health.

Public expenditure and evaluation of drug policies

Drug policy evaluation is an integral part of the approach to counter illicit drugs (9). Estimation of drug-related public expenditure can be seen as a first step in this direction. Public expenditure estimates aim to calculate the amount of resources spent, or required, to implement targeted interventions in a particular policy field. These estimates may reveal to what extent policy intentions are reflected in relevant budgets and are conditioned by the size and characteristics of the drug phenomenon. Most European countries have a national drug policy presented in a drug strategy document (5). National drug strategies attempt to target both drug demand and drug supply reduction, though these two sectors do often not receive an equal share of resources and attention. Instead, the allocation of resources depends on country specific priorities and aims for different drug policy sectors, as well as on the relative price of implementing each activity in a cost-effective manner.

Accurate estimates of public spending will help policymakers plan relevant interventions and allocate necessary funds to authorities in charge of policy implementation. A thorough assessment of drug policy expenditures will also contribute to improved transparency and accountability of public institutions. Estimates may provide information on factors such as the relative importance of demand and supply expenditures and enable cross-country comparisons of the level and composition of spending (10). Sound planning, improved knowledge of the resources allocated to this policy field, and cost-effective resource allocation are particularly necessary in times of economic downturn when fewer resources are available.

To optimize resource allocation to this policy field, one should ideally conduct a full cost-benefit analysis. A cost-benefit analysis systematically compares all costs and benefits of one particular policy area or project to determine whether there is a positive net benefit (i.e. whether benefits outweigh the costs). This type of analysis can also compare alternative policy options and evaluate the effectiveness of separate parts of a comprehensive policy. For the drug control sector, a cost-benefit analysis should explicitly take all costs, including unintended adverse effects of the policy, into account when evaluating whether the policy provided a net benefit to society. Unfortunately, a regular cost-benefit analysis is currently not attainable as the quantification of both benefits and costs of drug control policies are underdeveloped. Still, a better understanding of the different elements involved is possible and useful. This report takes the first step towards such a systematic analysis by examining the public expenditure and the unintended consequences of the drug control policy.

We define *drug control costs* to include all kinds of public expenditure on efforts aiming at reducing drug use and availability through enforcing the drug laws. Thus, drug control costs comprise government expenditures on public order and safety, such as budgetary expenses for police, customs, judicial system and prisons. The vast majority of these resources are spent on enforcement against producers and dealers, but expenditures also include legal action against drug users in some countries. It should be noted that the term “drug control costs” will be used interchangeably with “supply reduction costs” in this report. This is consistent with terminology used by other international organisations such as the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA).

Limited data availability is often a challenge when conducting drug-related public expenditure analysis. Many countries do not have separate budgets for drug-related expenditures, as they are embedded in broader budget categories. Often, more than one sector is involved and expenditures may be found at different administrative levels (central, regional, local). Chapter 2 presents examples of expenditure analyses and provides suggestions for how to improve data collection and estimates.

Unintended consequences of drug control policies

To evaluate and improve drug policy, it is imperative to know and take note of *all* possible effects of different interventions and actions. All policies, regardless of purpose or intention, come with a risk of unintended consequences. Unintended consequences can be defined as consequences that are not deliberate or intentional; they are not the targeted effects of any given action. This does not necessarily imply, however, that these consequences are unexpected – on the contrary, their occurrence may in some cases be considered very likely. For instance, a ban on the production and sale of listed substances carries a high risk of the appearance of an illegal drug market.

Unintended consequences will vary substantially from country to country depending on national drug legislation and its *de facto* implementation. One should bear in mind, however, that even the most liberal control regimes will produce unintended effects. If all drugs were freely available and no control measures were implemented, a substantial non-intended burden on society and non-users would still result as a consequence of the amount and type of drugs consumed and modes of drug-taking. Further, legal but regulated drugs like alcohol and tobacco also result in control costs and consequences, both intended and unintended.

Unintended consequences may further vary according to the social/economic context, type of substance,

individual characteristics and time period. Some of these consequences relate to drug market participants (drug users and suppliers), while others relate to non-participants and to society in general. Often-mentioned unintended consequences affecting drug offenders include stigmatization, social exclusion, negative effects of imprisonment, reduced educational and labour market opportunities, disconnection to work life and travel restrictions (visa denial), while non-participants suffer consequences such as limited access to essential medicines for medical and scientific purposes. Further, unintended societal consequences can include factors such as the emergence of organized crime and human trafficking or a general risk of reduced public safety due to illegal methods of drug financing. Some producing countries like Mexico and Colombia have experienced extreme violence and thousands of deaths, while public health, security and safety have been negatively affected in many European countries (11).

Although most unintended consequences of drug control policy negatively influence those affected, there may also be some positive unintended consequences. For instance, imprisoned drug offenders are likely to reduce their risk-behaviour and drug use while incarcerated, and they may get access to health care, education and treatment in prison. Local drug enforcement may also reduce other types of crime, increasing safety in certain neighbourhoods. Positive, as well as negative unintended consequences should be adequately accounted for in policy making.

The aims and outline of the report

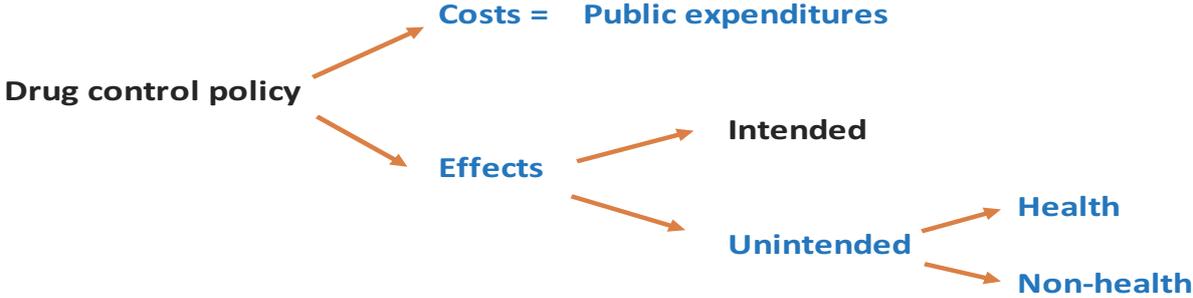
This report aims to define and identify costs and unintended negative effects of drug control policies, borne by individuals and society. We do this to improve the knowledge base and better enable policymakers to make informed choices in this area. Improved knowledge with regard to the resources that are allocated to this policy field will help planning and strategic thinking, particularly appropriate in times of austerity. As there is no way to completely avoid unintended consequences, it is important to adequately take them into account when deciding on aims and measures for handling the drug phenomenon. Furthermore, we suggest possible interventions to reduce the impact of the identified consequences. There are interventions available that may reduce the adverse and unintended effects of drug control policy, regardless of what regulatory regime is implemented.

Some central concepts of drug control policy are defined and discussed in Chapter 1. Chapter 2 provides guidelines for how to collect relevant cost information and proposes a common set of definitions and methods to be used for public expenditure assessment and evaluation. Further, we present compiled national

information of levels and compositions of drug-related public expenditure, which show that most countries seem to spend more on supply reducing than on demand reducing efforts. Chapter 3 presents our analysis of unintended consequences. Although we, of course, acknowledge that defining and measuring intended effects is an important task for any policy evaluation, the focus of this report is the unintended

negative ones. These unintended consequences are split into health and non-health effects and are related to the bearers of these consequences (users and non-users of drugs). The chapter also offers a list of possible interventions that may reduce unintended consequences. Chapter 4 discusses our findings and suggests a way forward.

Figure 1 illustrates the outline of the report.



Chapter 2

Public expenditure on drug control policies

Introduction

The aim of this chapter is threefold: First, to increase international awareness concerning the importance of estimating public expenditure on supply reduction initiatives. Second, to raise public awareness of the need to agree upon harmonising definitions and increasing the availability, comparability and reliability of data, as well as methods for producing sound estimates. Third, to contribute to developing national and international estimation practices with a view to obtaining accurate, complete, reliable and comparable drug policy evaluations.

As mentioned in Chapter 1, the overarching objective of drug control policy is a measurable reduction in the availability and accessibility of illicit drugs. Drug control initiatives comprise the whole system of laws, regulatory measures, courses of action and funding priorities concerning illicit drugs put into effect by a government or its representatives. Estimation of drug-related public expenditure can be seen as a fundamental step in the process of policy evaluation. A subsequent step would be to systematically compare public expenditure and other possible costs to the policy's measured outputs or results. Depending on how policy results are defined and measured, a cost-benefit or cost-effectiveness analysis could be conducted (see glossary). In this case, resource inputs (the costs of labour, capital and/or equipment) are linked to intermediate outcomes (e.g. number of drug dealers arrested), final outputs (e.g. lives saved, life years gained, number of drug users, reduction in drug-related harm, percentage reduction in crimes committed), or policy goals. Regardless of the selected output measures, however, public expenditure will be a central cost factor, since governments constitute the main provider of drug supply reduction services in Europe.

A thorough economic evaluation can provide policymakers with the information required to make

well-informed decisions. Although the data and a quantification of all the outcomes and cost elements required for conducting the most comprehensive analyses are currently not available, a somewhat less extensive analysis and an improved understanding of the individual elements involved are still possible, useful and desirable. This report takes the first step towards a systematic analysis by examining a number of representative attempts to estimate public expenditure on drug control policies. It proposes a common set of definitions to be used for public expenditure assessment and evaluation. In addition, it aims to establish a common basis for understanding this complex subject and to facilitate comparability in three main areas: time, policy and countries concerned. Although the report mainly focuses on drug control expenditures, in order to contextualise them, it also details total drug-related expenditure as a proportion of gross domestic product. It further shows how spending is balanced between demand and supply reduction initiatives in a number of European countries. To facilitate and promote future empirical expenditure studies, the relevant data sources and methodologies applied in making empirical estimates are listed and discussed. Examples of sectorial models of public spending and examples of national supply reduction expenditure studies are also provided. Finally, some conclusions and recommendations are offered.

Appendix 1 presents international sources that have published data in this field and summarizes their data. While aggregate data for broad classes of public expenditure have been published for two decades, data trends for drug-related expenditure on control policies are not available. Specific data reflecting the activity of national drug control policies, such as the number of criminal offences or the evolution of the prison population, are available. However, data such as these require adequate modelling before being ready to be used in estimates of public expenditure on control policies.

Defining concepts

Public expenditure

The term «public expenditure» refers to the value of goods and services purchased by general governments (at central, regional and local levels) in order to perform their functions. For example, it refers to resources spent on healthcare, justice, public order and safety, education, social protection and so on (12). Public expenditure is quantified by cost exercises conducted by governments (10). The role of private expenditure in drug policy varies across countries, timescales and policy areas. In many countries, drug treatment is partly financed by the private sector (insurance companies, drug users or their employers, relatives, etc.). In other drug policy areas, such as supply reduction, private funding usually constitutes a negligible share of total spending (13).

Drug-related public expenditure

Drug-related public expenditure is the sum spent by governments on goods and services with the aim of tackling the illegal drug phenomenon. Although drug policy expenditure estimates are deemed useful, most countries do not produce separate drug-related budgets as part of their ordinary budgeting exercise. Relevant analyses and estimations can be complicated since several inter-ministerial and cross-governmental sectors are involved in drug control programmes, including justice, policing and border control, prisons, social protection, education and health. Disentangling drug policy expenditure across government departments and inter-sectorial policies remains a significant challenge. Changes in legislation and the structure of public administration can further hamper comparability over time.

An additional challenge lies in the fact that drug-related programmes and activities can be found at many different levels of public administration. For instance, funding for imprisoning drug-law offenders is usually provided by the central government, while prevention of street dealing or social reintegration programmes for former drug dealers are frequently financed by local authorities. This makes it necessary to compile data at different administrative levels, which can be a demanding task.

In addition, often only a small fraction of drug-related public expenditure can be traced directly back to government documents or single budget lines and are labelled as such. The required data for drug-related public expenditure are instead embedded in budgets for larger sectors or programmes (unlabelled expenditure), which means that modelling and calculations are required to produce clean data. For instance, it is common that prisons do not have a separate budget for drug-law offenders, because they usually have

one single budget for their entire activity. Therefore, the values of this embedded expenditure can only be estimated through modelling approaches (14). This requires skills, modelling tools and techniques.

Despite various factors which may challenge the robustness of estimation results (limited data availability, layering of assumptions, changes in definitions or regulations over time, etc.), the application of existing models can provide useful insights, as various countries' experiences show (see the examples below).

Public expenditure on supply reduction initiatives

In this report, public expenditure on drug supply reduction comprises the funds spent by the general government with the broad purpose of reducing the availability of illegal drugs with the support of the police, law courts and prison services geared towards countering the illegal drug phenomenon, as defined by Eurostat (12). In general, police services comprise enforcing national laws and regulations, including factors such as crime prevention and investigation, the regular and auxiliary policing of ports and borders, coast guards and customs, as well as road traffic regulations and supervision. The services provided by law courts comprise the operation or support of civil and criminal law courts and judicial systems, the prosecution service, fine enforcement and probation systems. Prison services comprise the activities of prison administrations and the operation or support of prisons and other places for the detention or rehabilitation of criminals, such as prison farms, workhouses, reformatories, borstals, asylums for the criminally insane, etc. (12).

In the case of public expenditure on drug supply reduction initiatives, the vast majority of resources are spent on enforcement targeting producers and dealers, but may also include legal action targeting users for drug possession when required by national judicial systems.

Empirical estimates of demand and supply policy expenditure

Over the last decade at least 16 European countries have provided comprehensive estimates of drug-related public expenditure (15). Country estimates suggest that drug-related expenditure ranged from 0.01% to 0.5% of gross domestic product (GDP). Since the studies may not have applied the same expenditure classifications or the same estimation methods, caution is required when making cross-country comparisons (15).

Interestingly, however, the information available suggests that supply reduction activities accounted for the largest share of drug-related public expenditure

in most countries. Of the 16 countries producing complete estimates in the last decade, only four countries spent less than 50% of their total drug budget on

supply reduction, while five countries spent 70% or more. The other countries spent between 50% and 70% of their drug-related expenditure on supply reduction.

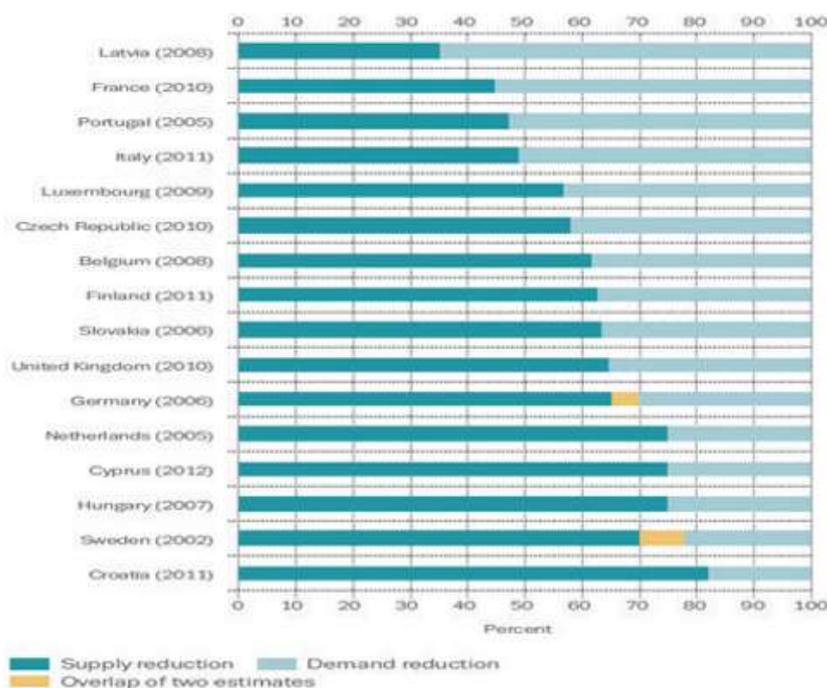


Figure 1 Breakdown of drug-related expenditure between demand and supply reduction.

Source: EMCDDA, 2014b (15)

Analysis has also shown that funds allocated to drug-related initiatives account for only a small proportion of the overall public expenditure in the “public order and safety” sector. For instance, in 2008 (the only year this exercise was systematically conducted in European Union countries), supply reduction expenditure represented between 2% and 12% of total public expenditure in this sector, while the proportion of drug-related expenditure on these items accounted for less than 1% of total public spending in the “health and social protection” sector during that same period. Since most public spending on demand reduction initiatives is classified under “health and social protection,” these figures may suggest that European countries give higher political priority to supply reduction initiatives as part of public order and safety activities than to demand reduction initiatives as part of overall public health activities (10). Annually, EMCDDA reports the most recent estimates available for national drug-related public expenditure in the European Union countries, Norway, and Turkey as a percentage of gross domestic product (GDP). When available, EMCDDA also reports the proportion of funds spent on supply reduction initiatives (<http://www.emcdda.europa.eu/countries>).

Steps in cost estimation and analysis

Clarifying definitions, improving estimation methods, agreeing on best practices and finding reliable, standardised data will enhance the utility of public expenditure estimates, as analysis over time and across policy areas and countries can be improved (16). Better quality data and further methodological developments are needed. To this end, we recommend some general methodological steps in cost estimation and analysis.

Defining the scope and objects

Globally speaking, a first step for a viable cost estimate is defining the scope and type of public expenditure considered. In addition, it is necessary to clearly indicate which geographic area and which function of public service provision the estimates cover.

Making an inventory of service providers

Secondly, it is necessary to identify the public entity or institutions responsible for the provision of drug-related services – in the case of this report, supply reduction measures and interventions. The government

authorities and public institutions and services responsible for the implementation of drug policy initiatives at different competency levels must be inventoried.

Mapping financing entities

The third step is to identify the different public authorities and institutions that fund aspects of drug policy and finance service providers. Regardless of governmental structure, expenditure by all relevant national, regional or local government institutions, directly or indirectly associated with drug policy, should always be included in a cost estimate.

Matching stakeholders responsible for providing drug policy services with their financing entities can be challenging, as the entities in charge of providing public services are not always obvious and easy to identify. For instance, when drug treatment services are provided within prisons, the entity in charge has public order and safety as its first function but health as its objective in this situation. Therefore, analysts must consider whether to include the costs of these activities as supply reduction or demand reduction initiatives. Eurostat, along with most international organisations concerned with policy evaluation, includes the provision of services as the main method to identify which sector funds are used for, even where the provider is less obvious. In this case, public expenditure on drug treatment provided in prisons should be excluded from expenditure estimates for supply reduction services and accounted for as drug-related health expenditure. Sometimes, provision will be the responsibility of private entities while financing is a government responsibility.

It should be noted, however, that the same service may have multiple policy purposes and duplication should be avoided. For instance, in the case of social reintegration programmes in affected neighbourhoods, financing may serve both the purpose of preventing drug crime (supply reduction expenditure) and the purpose of preventing drug use (health spending in demand reduction expenditure). For public accounting purposes these funds should not be counted twice. Therefore, researchers will have to include this expenditure only once, choosing to record it under either preventive health or crime prevention. Sometimes, deciding in which sector to include the expenditure is difficult and the best way to deal with such situations is to ensure that researchers document the different choices and assumptions they make.

Data collection

The fourth step is to determine a strategy for collecting the required data on public expenditure. In order to obtain relevant information, analysts will have to examine policy documents and accounting data. It is also recommended that interviews be conducted with the major stakeholders in the field as a way to obtain

better information about where financial data might be available, and to search for international data sets.

Classifying and identifying data on drug-related spending

It is essential to classify public expenditure according to the purpose for which the expenditure is intended (12;17). The next step to consider is how to group drug-related spending according to these sub-purposes. Two classification systems are commonly used:

- ▶ Taking into account the fact that drug-related expenditure on supply reduction initiatives comprises funds spent with the aim of addressing the illegal drug phenomenon through the police, law courts and prison service, the classification frequently used in international comparisons is the Classification of the Functions of Government (COFOG).¹ Under COFOG, most drug control policy expenditure is included in the “public order and safety” class of expenditure. The most directly relevant subclasses are “police services”, “law courts”, “prisons” and “R&D public order and safety” (12).
- ▶ Reuter (20) relates public expenditure to the supply and demand sides of the market, and subdivide public costs according to four government programmes; prevention, enforcement, treatment and harm reduction programmes. He counts public spending on supply reduction under “enforcement programmes” and considers that these are “programmes aimed at traffickers and producers to shift up the supply curve for drugs; other things being equal, they should raise the price of drugs and lower quantity. Programmes aimed at users and retailers raise the transaction costs of buying drugs”. In other words, enforcement programmes will make drug producing, trafficking or dealing more expensive, because they either bring about an increase in the unitary costs of production or introduce greater risk into the business (21).

These two classification systems are substantially different. COFOG was co-designed by the statistical office of the European Union and the European Commission, with well-defined concepts and data collection methodologies. Annual mandatory data collection has been implemented in every European Union member state since early 2000. The system covers all functions provided and financed by governments. Though drug-related activities are among the overall tasks provided and financed by the public sector, there are no specific methods specified or data collected on drug-related expenditure. Drug-related

1. National estimates sometimes use alternative definitions. See Lievens et al., 2016 (18) or Kopp, 2006 (19) for further details.

expenditure is embedded in broader items, such as public expenditure on public order and safety, security, health, education or social protection. Conversely, the Reuter's classification was designed to organize public expenditure spent with the main aim of tackling the drug phenomenon. Despite the fact that no systematic data collection is based on this system, it is frequently applied in empirical estimates (see examples in section 2.6 below).

The research community has not formally adopted either of these classification systems. As Eurostat publishes data annually in accordance with the COFOG classification, their system has some advantages, although researchers have to choose criteria and design models to disentangle drug-related spending within the overall expenditure classes.

As mentioned, supply reduction initiatives are often embedded in policy projects that have broader objectives and budgets. Therefore, it is important to first look beyond expenditure that is exclusively used for drug policy and to also include spending intended for broader policy domains that indirectly, but significantly, contribute to or impact drug policy. For instance, investing in effective policing in certain neighbourhoods, in order to prevent all types of crime, may also contribute to preventing drug dealing. Consequently, it is relevant to take into account overall budgets for initiatives which may have direct synergies with drug policy objectives. Secondly, modelling techniques are required in order to extract drug-related expenditures from overall expenditures. For example, specific estimates and well-defined methodologies are needed to disentangle expenditure on drug-related crime from overall public spending on law courts (more details on methodologies are given below).

In the event that not all the required data are available in international data sets, national databases should be mapped. Each country has different structures for drug control services, provision and financing. National data mapping can be achieved in different ways, such as extracting information from registration systems and annual reports or by interviews with key experts and/or contacts working in this field (22). Detailed mapping of available data can be demanding and makes intensive use of resources. However, it is a fundamental step for any estimate of public spending on drugs control.

Extracting expenditure data: labelled and unlabelled expenditure

Some of the funds allocated by governments for drug-related expenditure are identified as such in the budget (labelled expenditure). However, the majority of drug-related expenditure is often not identified (unlabelled expenditure) and must be estimated using modelling approaches. Total drug-related expenditure

is the sum of labelled and unlabelled drug-related expenditures (23).

Since labelled expenditures are clearly identified in budgets, calculation methods are not required. Time series data are often available for labelled expenditure. The biggest challenge when data on labelled expenditure are compiled is to ensure complete mapping of all entities in charge of providing these services, as they can be spread across different government levels. Depending on the national structures, expenditures from all relevant national, regional or local government institutions that are directly or indirectly associated with drug policy should always be included.

For unlabelled expenditure, a modelling procedure is necessary and the modelling is based on either a top-down or a bottom-up approach. Frequently, these estimates require the use of activity data to develop estimates, such as the number of offences, offenders, criminal cases, or prisoners.

Modelling unlabelled expenditure

The top-down modelling approach is mainly used when the data available are embedded in programmes with broader goals and the fraction attributable to drugs can be identified as a proportion of the overall budget. In order to identify this proportion, models identify objective criteria and calculate attributable fractions.

Unlabelled drug-related expenditure = Overall expenditure × Attributable fraction

There is no general methodology to determine attributable fractions, also known as repartition keys. In practice, the appropriate repartition key is determined by the object of the estimate, data availability and the modelling approaches available. Repartition keys are determined in different ways on the basis of information from activity data. These activity data are extracted from registration systems, annual reports and/or contacts working in this field (22). When determining attributable fractions, the data used should preferably be publicly available or, even better, stored within international databases. This can guarantee the possibility of producing comparable estimates in the years that follow and in other countries.

Appendix 3 summarizes information on the data available in the most relevant international databases that can be used to estimate unlabelled public expenditure on supply reduction. It describes the activity data reported, the reporting countries and time periods. This appendix reports the data available concerning annual statistics on national public expenditure on police, law courts and prisons reported by Eurostat. These data include not only expenditure on drug-related initiatives, but the total spent on all crime. Therefore, to extract drug-related expenditure and build attributable fractions, activity data is required.

For example, data on the number of drug-law offenders in prison compared with total prison population will allow researchers to estimate drug-related prison expenditures as a proportion of total prison spending. Additionally, the number of drug-related cases handled by police, prosecutors or drug-law courts compared to the total number of cases handled by these institutions may also allow researchers to estimate their drug-related costs.

To design attributable fractions, models may use data on crime, police, law court or prison activity. Appendix 3 presents information and data by groups of variables. These groups encompass total public expenditure, drug-related public expenditure, supply reduction public expenditure; drug law offences; crime reported by the police, drug-related crime, conviction statistics and prison population. Within these groups, relevant variables are listed. For each variable, available data are listed by source, country and time period. Finally, this appendix reports the number of observations available for each variable. Relevant sources include data from the Council of Europe, EMCDDA, EUROSTAT, Institut de Criminologie et Droit Penal de l'Université de Lausanne and the UNODC.

Despite the fact that some of the data are only available for a short period of time and that data are still missing in many countries/years, gathering information that is available will allow researchers to develop better methods and more accurate estimates in the future.

When international sources are not available, publicly available national statistics and data from competent public bodies should be used.

Advantages of the top-down approach

- ▶ **Availability of data:** Aggregated budgetary data are often readily available which means that top-down approaches can be easily applied.
- ▶ **Low cost:** the availability of aggregate data means that the time and costs required to estimate a top-down unit cost can be reduced.
- ▶ **Versatility:** the methodology enables an analyst to forecast how costs may change as a result of a reduction/increase in service usage (for example, when there are less/more drug-related crimes committed in a certain year than expected) and how these costs change over time.

There are, however, some limitations associated with a top-down approach. A top-down approach may not clearly identify different factors that drive costs and therefore often masks the underlying factors that determine why unit costs vary within a single, yet heterogeneous, service group. The criteria laid down for estimating attributable fractions do not always take into account all of the characteristics

that may impact the total costs, which means that cost functions are often simplified. These estimates therefore may not often be very precise. Nevertheless, they are frequently used and provide valuable proxy indicators for average costs.

An alternative method of estimating drug-related expenditure is to base estimates on the cost of providing one unit of public service, known as the bottom-up modelling approach. For instance, how much does it cost to keep one drug-law offender in prison? Considering the different costs borne by the government for managing a prison facility, such as the real costs of state property, prison staff, electricity, water and gas, machinery, etc., it is possible to estimate how much each detainee costs per day. This sum can then be multiplied by the number of drug-related detainees, taking into account different costs associated with each type of detainee, based on the different lengths of prison sentences, different security levels, etc. To obtain the total expenditure on drug control policy, all cost elements should be identified and totalled.

The bottom-up approach is particularly appealing when relevant unit costs are readily available. If, on the other hand, every type and element of the drug policy has to be separately estimated, the approach can be demanding and challenging.

Advantages of using a bottom-up approach

- ▶ **Transparency:** detailed cost data allow potential errors to be investigated and their impact tested – this facilitates a quality assurance process.
- ▶ **Simplicity:** the calculation required to estimate unit costs is direct and easy to understand, providing a simple way to quantify administrative and overhead costs associated with a range of public services.
- ▶ **Detail:** detailed cost data can highlight variations, enable analysts to explore factors underlying variations and determine whether, for example, some service users account for a disproportionate share of the costs.
- ▶ **Versatility:** the methodology enables an analyst to forecast how costs may change as a result of a reduction in service usage or demand.

The main disadvantage associated with the bottom-up approach is that it requires detailed information concerning both the type of costs associated with the provision of each service (full knowledge of the production function of each public service) and the unit cost of each of the production factors.

A combination of the two approaches may be preferred. The advantage a dual method is that it makes cross-verification possible; the data gathered in a top-down approach can be double-checked and supplemented with the data retrieved from project actors in the field.

Reporting the value of estimates

The basic format used to report the value of estimates is monetary value in nominal terms. However, to permit comparability over time, estimates should be adjusted for inflation if reported in monetary units.

Some authors, however, report the value of estimates as a percentage of GDP. This way of presenting results considers the economic dimension of a country. It is likely that drug-related spending is higher in a country with 85 million inhabitants than in a country with 10 million inhabitants. The same holds for a higher income country (10). For these reasons, reporting the value of estimates as a percentage of GDP is a valid choice, since it takes account of both inflation and the size and level of a country's income.

Another frequently used approach is reporting the value of spending per number of problem drug users. In this case, authors take into account the context of the drug problem. Reporting all complementary measurements of drug-related public spending facilitates the validation of the data through cross-verification and increases the economic significance and utility of the estimates.

Examples of sectorial models

In addition to collecting labelled public expenditure data, several models have been applied to identify unlabelled expenditure on drug control in national contexts. Different authors have applied different definitions, data sets and models to estimate items of drug-related expenditure. This section presents examples of models used to estimate unlabelled drug-related spending on various types of supply control initiatives.

Police

Public spending on drug-related police services is probably best identified using a top-down approach.² In order to disentangle this expenditure from total public expenditure on public order and safety, as published by Eurostat, attributable fractions have been calculated with the help of activity data, such as drug-related offences in proportion to the total number of offences. The following are concrete examples of variables available in national and international data sets, which have all been used separately to estimate attributable fractions:

- (1) The number of drug-related crimes per 100 000 population.

2. Although it is also possible to use a bottom-up approach, since police activity is normally financed by the central government budget, a pragmatic approach frequently used is to prepare estimates based on these aggregated budgets. In this case, estimates for public spending are relatively complete, considering all relevant costs. Additionally, this method facilitates the international comparability of results, since comparable data are available for most European countries.

- (2) The number of drug-related cases reported by the police out of the total number of police cases.
- (3) The time the police forces spend on countering the drug phenomenon in proportion to their total working time.

To estimate the share of costs attributable to spending on police action against illicit drugs, the ratio is multiplied by the total expenditure of the law enforcement agencies and reduced by any available data on labelled expenditure for drug control.

A concrete example is provided by the estimates for Italy. Genetti (24) estimated drug-related public expenditure for police forces based on the amount of time that staff spent on drug control in 2011: possession of illicit drugs for personal use; production, trafficking and dealing in illicit drugs; and driving under the influence of drugs and alcohol. The proportion that this time represented of the total working time for the police forces was then used as an «attributable fraction» for disentangling the amount of money that was spent on drug-related police activities from total spending on police activity. Within the funds allocated for drug control, 14% was spent on drug-police activity, while law courts and prisons spent the remaining 21% and 65% respectively.

Moolenaar (25) developed a model and provided an example of how to estimate public spending on supply reduction initiatives in the Netherlands. The author applied a top-down model based on the average cost of police time spent on this work. Moolenaar calculated the average duration of each type of criminal investigation first by type of criminal activity (assuming that different criminal activities have different investigation costs based on an assessment of the severity of the crime) and second by the number of cases registered for each criminal activity.

Customs

With regard to customs services, the share of customs officers who deal with drug control activities and/or the proportion of their working time compared to the total number of custom officers and/or the total working time has been used as an attributable fraction. As input data, the number of customs officers who are involved in drug control activities forms the basis for calculation. These estimates are then applied to total expenses of the customs administration (minus any labelled expenditure specifically targeted towards this activity). It should, however, be noted that most customs officers do not exclusively devote their working time to drug control activities, so, ideally, the percentage or the average of working time devoted to drug control should be estimated.

Kopp and Fenoglio (26) estimated the drug-related expenditure of customs services based on the

proportion of customs officers allocated to addressing illicit drug trafficking within the total number of customs officers. This proportion constituted the attributable fraction applied to the total customs budget. The authors concluded that, in 2000, drug-related spending on customs services represented approximately 10% of total drug-related spending in France. As these authors pointed out, omitting costs such as those of detection equipment or detection dogs may be considered a relevant limitation, since these costs may have a strong impact on relatively small budgets, such as customs services.

Lievens et al. (18) estimated drug-related expenditure by customs based on the proportion that drug-law violations represented of the total number of violations registered by ordinary customs services, investigation services and motorised brigades. They used a top-down approach based on the number of drug-law offences as a proportion of the total number of offences. In 2012, customs spending represented 3.6% of the total drug-related public spending on supply reduction in Belgium.

Court systems

Spending on drug-related court services has been extracted from total national expenditure on law courts based on the following activity data:

- (1) The proportion of drug-related offences with regard to the total number of offences.
- (2) The proportion of drug-related convictions with regard to the total number of convictions;
- (3) The proportion of people imprisoned for drug-related offences with regard to the total number of prisoners.

Kopp and Fenoglio (26) estimated the expenditure that drug-related crime represented in the French judicial system. They adopted a bottom-up approach, taking estimates of the time spent by various types of French judges and other types of administrative staff on drug-law cases and then multiplying these estimates by their average salaries. Based on this method, the authors concluded that law courts represented about 24.4% of total drug-related public expenditure in France in 2000.

In Croatia, drug-related spending on the courts covered drug-related cases prosecuted by both the State and the courts (27). A top-down approach was used based on estimates of the number of drug-related crimes as a proportion of the total number of crimes registered by the police. The researchers recognised that these estimates were crude, but they could not obtain a better proxy for this particular component of the estimates.

In Sweden, expenditure on drug-related prosecutions and court cases (district court, court of appeal and supreme court) was estimated based on a bottom-up approach, which combined the number of cases and

the average cost per case (28). The data were obtained from a judicial system official. It should be noted that the average case cost was not recorded by type of crime; instead the average for all types of crime was used as an indicator for drug crimes. Moreover, for the court of appeal and supreme court, only the total number of criminal cases was available and the proportion of drug cases was estimated based on case numbers in the district courts (9%). Regarding the range of the estimates, it should be noted that the author included, as an upper limit, a specific percentage (30%) of the costs of addressing other crimes, as they may have been committed under the influence of drugs.

Prisons

Unlabelled costs of drug-law offenders in the prison system can be estimated using the number of convicted prisoners for drug-related offences expressed as a proportion of the number of overall convictions. For example, to estimate expenditure related to drug-law offences in prisons, two elements must be taken into account: overall prison expenditure for a given fiscal year and the attributable fraction of prisoners convicted of drug-law offences.

EMCDDA (14) provides an example of how public expenditure on drug-law offenders in prisons can be estimated. Based on data for public expenditure on prisons provided by Eurostat and data on the number of offenders provided by the Council of Europe, the proportion of prisoners sentenced for a drug-law offence as their main offence was compared with total public expenditure on prisons. A range of estimates was calculated, with low estimates taking into consideration only prisoners sentenced for a drug-law offence and high estimates also including pre-trial prisoners. Between 2000 and 2010, this expenditure was estimated to range, on average, between 0.03% to 0.05% of GDP in 22 European countries. On applying these percentages to the entire EU for the year 2010, the estimated expenditure was within the range of 3.7 billion euros to 5.9 billion euros.

Examples of national studies

Several models and data sources have been applied in different national contexts to identify labelled and unlabelled expenditure allocated to drug control initiatives. Due to national specificities, neither their external validity nor the comparability of the methods used have been tested. The extent and specificity of labelled drug-related expenditure vary substantially across countries, as do the data and methods applied for estimating unlabelled expenditure. Due to this, the national estimates presented below are not directly comparable; however, they do provide examples of useful models and estimates and illustrate some of the approaches applied.

Croatia

Budak et al. (27) aimed to identify the central government's total drug-related public expenditure and to develop a method of estimating and allocating unlabelled expenditure by type of drug policy programme (prevention, treatment, social reintegration, harm reduction and law enforcement). For labelled expenditure, governmental institutions were asked to classify budget expenditure by public function and by type of programme. Unlabelled expenditures were identified indirectly with a system of repartition keys, which were applied to the total state unit budget (minus labelled costs). The repartition keys were estimated using supply reduction activity data. Unlabelled public expenditures were estimated on the assumption that they make up the part of public expenditure remaining after labelled public expenditures for countering drug abuse have been deducted from the total expenditure of a public body.

For the period of 2009-2012, the study suggests that public expenditure on law enforcement constituted about 73% of total drug-related public expenditure by central government, whereas prevention, treatment, social reintegration and harm reduction represented 12%, 13%, 0.3% and 2%, respectively. When comparing unlabelled expenditure for different programmes in a single year (2011), unlabelled expenditure on law enforcement represented 82% of total unlabelled drug-related expenditure. On the other hand, law enforcement accounted for 4% of total labelled expenditure. Overall, the estimates indicate that drug-related expenditure accounted for 0.2% of GDP.

Belgium

The study *Drugs in Figures III* measured how much the Belgian Government spent on drug policy in 2008 (29). It expanded upon two earlier studies (30;31) by carrying out a new and more refined estimation of public expenditure to counter illegal drugs. The study combined a top-down and a bottom-up approach for estimating public expenditure. The vast majority (98.45%) of the expenditures were identified as a result of the top-down approach. Public expenditures identified through the bottom-up approach (1.55%) were related to organisations that depended on the government for most of their funding.

Total drug-related expenditure was broken down by programme: law enforcement, treatment, prevention, harm reduction and other. For 2008, public expenditure on law enforcement constituted 45% of the total expenditure. This was slightly less than the total spent on treatment (49%) and substantially more than that spent on prevention (4%), harm reduction (0.8%) and other (1.2%). When estimated in the same way for 2004, public expenditure on law enforcement showed a substantial increase between

2004 and 2008, both nominally (from 186 038 337 euros to 243 000 490 euros) and in relation to other programmes (it increased by 6 percentage points).

Italy

For the purpose of estimating drug-related public expenditure in Italy (32), a model was developed to analyse the flow of cost information from various sources. The model consisted of four components: private or indirect costs (individual costs and costs due to loss of productive capacity) and public expenditure or direct costs (law enforcement costs, social and health costs). To determine the costs of law enforcement, the following sources of information were used: data concerning traffic control and traffic accidents, police data on people caught with drugs for personal use, data on the number of convictions for drug trafficking, and data on crimes related to drug trafficking.

For 2011, the cost of drug-related law enforcement was estimated at 1 600 435 296.60 euros, or roughly 40 euros per inhabitant aged 15-64 years. The largest cost component was prisons and alternative measures (65%), whereas trials and legal expenses, law enforcement activities and administration represented 21.3%, 13% and 0.7%, respectively.

France

In a French study, the method relied on analysing activity records wherever available in relevant agencies (33). The total expenditure for drug-related activities in these agencies was then aggregated. The top-down approach applied in this case provided an indication of the proportion of expenditure for drug control related activities compared to the overall expenditure of all relevant institutions and agencies. To obtain an estimate, a fraction was applied to the total staff and routine operating costs of the agency concerned. In the year 2010, for example, 10% of police activities were attributable to drug control activities, which involved 60 police units. In this example, police expenditures attributable to drug-related activities were calculated by multiplying the total expenditure of the police services by this fraction of 10%.

A bottom-up approach was also adopted, based on the working time of staff performing support functions in connection with drug-related activities or the equipment used, as recorded by relevant agencies. For example, the time spent giving prevention talks in schools and the time spent by the police forces on alcohol tests were included in the calculations.

According to Kopp (33), the French government spent 913 million euros in 2010 on 'prevention and repression,' which represented close to 40% of total drug-related public expenditure (total drug-related expenditure was estimated at 1% of GDP).

Luxembourg

Since 1999, the social costs of drugs have been estimated annually in Luxembourg. These estimates take into account the total costs of the consequences of drug use and trafficking to public and private agents. Public spending is analysed in five sectors: prevention, treatment, harm reduction, law enforcement and research. In the law enforcement field, as in other fields, the analysts face the twofold challenge of accounting for drug-related spending, as financed by different general government levels, and of developing models to extract unlabelled drug-related expenditure from broader budgets (34).

Law enforcement was estimated to account for 39% of total drug-related public expenditure in 1999; prevention, treatment and harm reduction expenditure amounted to 59%, whereas research and other accounted for 2%. Overall, drug-related public expenditure represented 0.013% of GDP.

Russia

For Russia, public expenditures on law enforcement agencies and on the judicial system were estimated as part of a social study (35). The comprehensive model encompassed private and indirect costs (the cost for the individual and the costs due to loss of production capacity) and public spending, including direct spending on supply reduction services. These were disaggregated into spending on law enforcement and on criminal justice, which included factors such as law enforcement agencies and the federal drug control service.

Public expenditure on supply reduction services was estimated using a top-down approach and various sources of information: police data on persons caught with drugs for personal use, data on the number of sentences for drug trafficking, and data on crimes related to drug trafficking. As there was no published information on the fraction attributable to drug-related crime in Russia, the fraction estimated in a study by the US Office of National Drug Control (22%) was employed in order to estimate law enforcement and judicial system expenditures.

Portugal

There are few examples of attempts to estimate the impact of changes in the legal system on drug-related public expenditure and drug-related budgets. Gonçalves et al. (36) are an exception, as they conducted a comprehensive social cost analysis of the situation before and after decriminalisation in Portugal. The authors found a significant reduction in the non-health related costs of drug policy between 2000 and 2004, particularly in the legal system (direct costs). Although these observations highlight significant changes, prudence is still necessary in concluding

a causal relationship between the reduction in drug policy costs and the new Portuguese National Strategy for the Fight against Drugs (NSFAD).

Other national studies

There are other examples of public expenditure studies in addition to those listed above. For example, Mostardt et al. (37) estimated public expenditure in 2006 for Germany using data from Eurostat and the COFOG system, concluding that supply reduction represented close to 65% of the total drug-related public spending; Rigter (38) estimated that 75% of public expenditure was spent on law enforcement in the Netherlands; Ramstedt (28) presented public expenditure estimates for Sweden, concluding that public spending on supply reduction represented between 70 to 76% of the total; and Lievens et al. (18) published a social cost study, including estimates of public expenditure on legal and illegal drugs in Belgium. There are also US (39) and Australian (40) estimates. Despite substantial differences, the studies may all be viewed as necessary foundations in national drug policy evaluations.

International estimates and databases used to model drug-related public expenditure

The only available international compilation of updated estimates of drug-related public expenditure on supply reduction is published by the EMCDDA for EU member states (41), which reports the available national estimates of total drug-related spending separated into supply and demand reduction initiatives. However, the scope for cross-country comparisons is limited because country estimates often do not use comparable definitions, data sets or methodologies.

Another database of particular relevance is Eurostat because it is based on a consistent categorisation system and on internationally agreed definitions, which are required features for international comparison. The Classification of the Functions of Government (COFOG) is a detailed classification system for the functions or socioeconomic objectives that general government units aim to achieve through a range of outlays (for more details, see Appendix 2). Eurostat has published annual data according to the COFOG classification for European countries since the early 1990s. This data source has proved to be relevant and amenable to a wide variety of analytic applications. However, the data set does not comprise data concerning specific spending on drug-related public initiatives. In order to extract drug-related expenditure from broad classes of public spending, modelling approaches are adopted according to the sector of intervention.

Appendix 1 provides a list of relevant data sources. In addition to the two data sources already mentioned,

there is information on international reporting concerning supply reduction factors such as drug related crime (EMCDDA and the European Institute for Crime Prevention and Control), prison activity and costs (the Council of Europe), and crime and criminal justice systems (Eurostat and the European Institute for Crime Prevention and Control). Appendix 3 and the web site <http://www.emcdda.europa.eu/topics/drug-related-public-expenditure> make an extensive description of data published by international institutions.

Conclusions

- ▶ Each European country allocates significant public resources to the drug policy field. Public expenditure studies can reveal how much public authorities are spending on drug policy and for what purposes such expenditure is incurred.
- ▶ Public expenditure estimates can be used as a tool for assessing whether policy intentions are actually reflected in action, and they constitute a necessary tool for implementing thorough policy evaluations. Public expenditure studies should mirror all relevant activities and policy approaches and may be particularly appropriate in times of austerity.
- ▶ Estimates exist for 16 EU countries out of the 30 potential reporting countries (42). Estimates suggest that drug-related expenditure ranges from 0.01% to 0.5% of GDP. 12 out of the 16 reporting countries allocate the largest share of drug-related public expenditure supply reduction activities.
- ▶ Data availability is one of the main limitations in this field. The use of international databases is recommended, whenever possible, because these data sets employ broadly accepted concepts and definitions and provide better comparable data. Sometimes, however, national data sets may contain more detailed or reliable information.
- ▶ The total budget for supply reduction services is the sum of labelled and unlabelled expenditures. Labelled expenditures are clearly identified in public budgets, whereas a modelling procedure is required for estimating unlabelled ones. The modelling is based on either a top-down or a bottom-up approach. Using both approaches as complementary is advantageous but expensive. A list of advantages and limitations for both methods is provided, in addition to empirical expenditure studies for supply reduction activities in some European countries.
- ▶ While recognising the limitations presented by the data sets currently available, this report provides examples of current practice and, in doing so, suggests areas of future focus for desired

methodological development. It is hoped that the estimation of drug-related public expenditure on supply reduction initiatives and policy evaluation will move forward in Europe. For continued improvements, however, it is essential that a network of experts is developed and maintained. Partnerships should be extended and maintained with the goal of developing good practices, standards and guidelines in this field.

Recommendations

1. Improving estimation methods with further methodological developments, agreeing on best practices, and finding reliable standardised data will enhance the utility of public expenditure estimates, as it will permit analysis over time and across policy areas and countries.
2. Improving data quality and developing relevant data sources is needed for conducting more precise estimations of spending on drug control measures and to measure the impact of drug control policies. One option is to develop guidelines for data collection and economic modelling of evaluations.
3. It is essential to classify public expenditure based on the purpose for which the expenditure is intended. It is therefore useful to use a consistent categorisation system, such as the international Classification of the Functions of Government (COFOG).
4. Cross-country comparisons are important, but they are only possible with a common methodology of public expenditure estimates. International data sets and modelling techniques need to be expanded and improved in order to increase the capacity to carry evidence based on drug policy evaluations in the drug field
5. A methodology using a set of repartition keys according to COFOG categories can be a starting point in order to estimate unlabelled drug-related expenditures. General agreement among all participating countries on definitions and methods will help improve the comparability of results between countries.
6. Public expenditure studies involve analytical work, which requires adequate human and technical capacities in all relevant stakeholder fields. This work is important for obtaining the data quality needed for aggregation and comparison. To achieve this, a network of experts could be established and a working group of experts developed.
7. Developing methods to estimate public expenditure on supply reduction requires effective working partnerships between drug policymakers and specialists in the police, law courts and prisons. Collaboration with public accountancy experts and those in charge of economic modelling is required to guarantee meaningful estimates.

Chapter 3

Unintended consequences of drug control policies

Although drug policies are aimed at reducing drug use and its harmful consequences, policy interventions can have unintended consequences. Some of these consequences are health-related and can have direct effects on morbidity and mortality, or they can indirectly affect factors such as availability, accessibility and utilization of health care services. Other unintended consequences are not related to health, but rather to an array of social and economic consequences for the drug offender, their families and society as a whole. Unintended consequences are of policy value for two reasons: first, they should be taken into account when policy decisions are made and second, these unintended but predictable effects should be ameliorated when possible (20). The purpose of this chapter is to identify and discuss unintended consequences of drug control policies and identify those who bear them. In addition, for each identified unintended consequence, we suggest possible interventions that can be implemented to reduce their extent and negative effects.

Drug law enforcement intends to detect and respond to violation of existing drug laws and regulations. Enforcement includes actions such as surveillance, apprehension, imposition of a fine, and imprisonment. A violation of drug laws is associated with a probability of detection and a risk of punishment for the offender. Punishment aims both to penalize the individual and deter others from committing a similar crime. A sentence of imprisonment, for example, penalizes by restricting the offender's freedom of movement for a period of time. It is, however, not meant to generate stigmatization, reduce job opportunities or access to health care services. Likewise, a fine is meant to reduce the offender's financial resources, not to limit his or her educational opportunities, labour market outcomes or travel possibilities, which may be the case if the fine is accompanied by a criminal record. While bearing in mind the intended effects of drug control policies, the focus in this chapter is on these unintended consequences that often accompany intended ones.

Political views on optimal responses to drug use and drug problems vary substantially across jurisdictions in Europe and elsewhere. These views may also change over time, as illustrated by the observed recent changes in legal responses to cannabis use. This report does not advocate one particular policy option or method of handling the drug situation, but aims to present possible interventions that can be implemented regardless of what drug regulations and law enforcement practices are currently in place. Given present drug laws, the aim is to suggest interventions that can reduce the amount, effects and severity of unintended consequences. Some suggestions include interventions directed towards reducing health risks for drug users and their relatives, some relate to international cooperation in handling money laundering and terrorism, while others comprise suggestions for increasing the availability of pain relief medication. In total, almost 40 possible interventions are listed and discussed.

One might assume that the bearers of both the intended and the unintended consequences are the drug market participants only, but this is not the case. The unintended consequences affect, to a large extent, other people, such as relatives of drug offenders, patients in need of pain relief and palliative care, and society in general. Examples of bearers and consequences, given below, include the many people who suffer from reduced, or lack of, access to pain medication, the children, spouses, and parents and friends of drug users that are affected by stigmatization and by drug users' increased health risks. Other examples of consequences include the threat to society induced by the huge financial gains from illegal drug production and sale, leading to corruption, increased risk of armed conflicts and terror activities, economic instability, and more. By focusing on all who bear the consequences, in addition to drug market participants, this report emphasises that drug laws and law enforcement have widespread consequences and implications, many of which are unintended, that must be taken into account when determining drug policy and interventions.

In this chapter, the unintended consequences of drug control policies are subdivided into two main categories: health and non-health effects. The discussion of both categories is further divided into three sections, each with three tables that present i) the mechanism, ii) a list of unintended consequences, iii) the bearers of these effects (drug market participants and non-participants) and iv) a list of possible interventions to reduce and cope with these effects. The tables are inspired by the taxonomy of drug related harms found in MacCoun and Reuter (43) but deviate from it by only focusing on unintended consequences of control policies and by suggesting possible interventions. The accompanying text elaborates on the tables' content.

Despite substantial efforts, it is impossible to list every possible unintended consequence. Bearers could have been described and grouped in a more detailed manner and there are most likely more possible interventions than suggested here. Still, this report may be a useful starting point for discussing the issue of unintended consequences and how to reduce their extent and impact. Besides diminishing negative impacts on those affected, a successful reduction may also increase public support for drug control policies and regulations.

Health effects from restricted availability of controlled medicines

The purpose of the UN Conventions on Narcotic Drugs is dual: first, to prevent any misuse of controlled substances and second, to guarantee their availability for scientific and medical purposes. This implies that governments also have a dual obligation to develop policies and regulations for preventing possible abuse and harms while ensuring the adequate availability for scientific purposes and adequate availability, accessibility and affordability for those in need. In practice however, many states have mainly focused on control and restriction of listed substances, severely impeding the availability of controlled medicines for medical and scientific purposes. As a result, the implementation of the conventions in national legislation and policies are often much stricter than required by the conventions at the cost of patients in need, particularly patients in need of pain relief and palliative care and opioid dependent drug users seeking treatment (44).

Table 1 – Health effects from restricted availability of controlled medicines

Mechanisms	Unintended Consequences	Users	Non-users	Possible interventions (PI)
Strict regulations and limited access to prescription drugs, in particular morphine and other opioid analgesics	Reduced possibilities for medical improvements related to avoidable pain and other symptoms for patients in need	X	X	PI 1: Ensure access, availability and affordability of controlled medicines to patients in need
	Limited availability of opioid substitution treatment	X		PI 2: Ensure inter-agency collaboration between all relevant stakeholders, government and civil society, to promote coherent drug policy responses
	Restricted possibilities to conduct research on medical marijuana	X	X	PI 3: Ensure access to appropriate treatment supported by adequate psychosocial care and rehabilitation PI 4: Raise awareness and provide training for treatment with opioids among healthcare professionals PI 5: Reschedule cannabis

Strict regulations and limited access to prescription drugs

A study conducted by the Access to Opioid Medications in Europe (ATOME) group in 12 European countries adopting the World Health Organization (WHO)'s Country Assessment Checklist reported that a number of legal and regulatory barriers exist (45). Findings indicate that a range of regulatory barriers exist in national legislations related to prescribing, dispensing, and using opioid medicines, as well as trade and distribution, manufacturing, affordability, penalties, and language. Additionally, beyond the barriers of national legislation, there are also challenges concerning national policy strategies, such as lack of knowledge and appropriate training of healthcare professionals and poorly-developed health care systems (46). Strict regulations and inappropriate policies were found to have negative impact on adequate access to opioid medicines and severe unintended consequences on the lives of those in need of these drugs.

Morphine is considered to be the gold standard for treatment of moderate and severe pain (47-49). Since 1977, morphine has been designated by the WHO as an essential medicine, indicating that it should be available at all times and at a price that individual citizens and communities can afford (50). Still, there continues to be a global burden of unrelieved pain. The WHO estimates that more than 5.5 billion people live in countries with low or no access to controlled medicines and have no or insufficient access to treatment for moderate to severe pain.³ Further, there are profound inequalities of morphine consumption between high-income countries and low- and middle-income countries (51;52). According to the International Narcotics Control Board (INCB), a small number of high-income countries consume most of the morphine in the world, while countries inhabited by 80% of the world's population consume a small fraction (53). The WHO states that one reason for this limited access to prescription drugs is due to too strict enforcement of the UN Conventions (44).

Further, it is estimated that 16 million people inject drugs worldwide and that 5.8 million of these live in Europe. Persons who inject drugs (PWID) have a 20-fold increased risk of premature mortality and substantially increased risk of severe morbidity (5;54). Opioid agonist maintenance treatment (also called opioid substitution treatment, OST), combined with psychosocial assistance, is assumed to be the most effective treatment option (5;55-57). Still, only a minority of PWID have access to this kind of treatment. Beyond

3. The countries with low or no access are defined as countries where the consumption of opioid analgesics is lower than 30% of the adequate per capita consumption. The adequate consumption is defined as the average per capita consumption in the top 20 countries in the Human Development Index.

the benefits of assisting the individual to overcome withdrawal, reduce drug use and prevent relapse, opioid maintenance treatment contributes to reduced risk of overdose-related mortality, transmuting infections such as HIV and hepatitis (see for review Gowing, Farrell, Bornemann, et al. (58)), and a reduction of public nuisance and criminality (i.e. Mattick, Breen, Kimber, et al. (59)). Despite strong evidence for the efficacy of treating opioid dependence with long-acting opioid agonists such as oral methadone and buprenorphine, it is estimated that only 8% of injecting drug users have access to treatment for opioid dependence (44). In Europe, the WHO states that in 15 of the 25 European Union Member States, medical treatment with opioids was close to non-existent. This treatment gap for drugs and addictive behaviours leads to loss of life and undermines societal well-being (60).

Other effects of current laws and enforcement practices are the formal and informal restrictions on research regarding the therapeutic value and efficacy of cannabis' medicinal properties. Various bureaucratic, economic and cultural barriers in Europe and other developed countries hinder medical research on the drug (61). Cannabis is currently defined as a Schedule I drug, with a "high potential for abuse and no accepted medical value." To conduct research with Schedule I drugs, scientists usually have to gain a special approval and upgrade security protocols in their labs, which are expensive and time-consuming hurdles. As a result, the currently available evidence stems from small-scale efficacy studies that have not followed gold standard methodologies for assessing medical practice. Thus, the effects of therapeutic interventions of cannabis and essential knowledge of the drug, such as dosage, interactions with other medicines, composition, side effects, and for which conditions it may be used, remain empirically untested. This implies that the current medical use of marijuana is based on less than satisfactory evidence and clinical standards. The anecdotal evidence supporting the use of medical marijuana needs to be confirmed by meta-analysis and long term efficacy studies that follow standardized methodologies and protocols for assessing clinical efficacy, as also stated by "The Health effects of cannabis and cannabinoids: The current State of Evidence and Recommendations for research" by The National Academy of Sciences 2017 (62).

In sum, the too strict interpretation and enforcement of the drug conventions affects non-users of illegal drugs to a large extent, through insufficient access to pain medication and limited research on potential beneficial effects of medical marijuana. It also severely affects users through reduced access to the most promising treatment option for opioid dependence.

Possible interventions (PI)

PI 1: Ensure access, availability and affordability of controlled medicines to patients in need

WHO has urged all governments to “ensure that patients have pain relief in accordance with national and international treatment guidelines” (63). Possible responses may include:

- ▶ Implement recommendations in the WHO policy guideline⁴ “Ensuring Balance in National Policies on Controlled Substances, Guidance for Availability and Accessibility for Controlled Medicines” (44).
- ▶ Ensure non-stigmatizing language in legal and official documents (e.g. by using the term ‘Narcotic drug’ only for referring to substances controlled under the Single Convention);
- ▶ Establish regular exchange opportunities (communication networks) between legal and governmental authorities, healthcare professionals and patients/families in order to raise awareness for practical impact and requirements of legal and policy decisions (target-performance comparison) regarding opioid availability and accessibility;
- ▶ Provide and support the implementation and development of national databases for scientific research, treatment evaluation and monitoring of national demand of essential medicines
- ▶ Raise awareness in the general public, for example through media campaigns or information and brochures for patients and relatives

PI 2: Ensure inter-agency collaboration between all relevant stakeholders, government and civil society to promote coherent drug control policy responses

In order to formulate and implement coherent drug control policies ensuring the availability and accessibility of controlled substances for medical and scientific purposes, increased cooperation among relevant

stakeholders is recommended. Such cooperation could take the form of a National Advisory Board, including representatives from government authorities, medical boards, health professionals, patients and health insurances. The board could provide suggestions on how to achieve an appropriate balance between availability and prevention, assist in conducting the needs assessment for controlled medicines and report on the degree of access. It could also advise on the promotion of rational use of controlled medicines, implementation of best practices, and development of national treatment guidelines.

PI 3: Ensure access to appropriate treatment supported by adequate psychosocial care and rehabilitation

Given the well-documented effect of opioid substitution treatment (OST) in reducing risks of mortality, morbidity, crime and public nuisance, all countries are encouraged to provide OST programmes to treatment seeking opioid dependents. OST has been found to improve treatment retention (64;65), reduce illegal drug use (59;66;67), reduce criminal activity (68-70) and reduce mortality risk among its patients (56;71-77). However, evidence-based drug-free treatment options should also be provided.

PI 4: Raise awareness and provide training for treatment with opioids among practicing healthcare professionals

All relevant stakeholders and agencies involved in drug control (customs officials, police and courts officials) and health care providers (doctors, nurses, health professionals) should have sufficient knowledge of the government’s health policy with regard to treatment using controlled medicines. Drug control officials should acknowledge when it is lawful for patients and health professionals to be in possession of medicines and not exert excessive control measures. Physicians should be sufficiently trained to treat pain and be allowed to prescribe opioid analgesics if necessary. Specialized training should be developed for treatment and use of controlled medicines in accordance with international guidelines. Treatment with opioids (knowledge, skills, attitudes) should be included in undergraduate and postgraduate education for all relevant healthcare professionals.

PI 5: Improve possibilities for cannabis research

The most effective means for improving pharmacology and therapeutics research of cannabis would be to reschedule the drug from a Schedule I controlled substance to a Schedule II, as this is one of the predominant factors that prevents many institutions and research organizations from conducting research on this topic. This is already implemented in some countries, such as Israel and the UK. Independent of a reschedule, however, an increase in legal access to the drug (more legal producers) and a reduction in formal and informal restrictions would be beneficial for research.

4. The World Health Organization (WHO) established in 2007 the “Access to Controlled Medications Programme” (ACMP) in consultation with the International Narcotics Control Board (INCB) and in response to resolutions of the World Health Assembly (WHA) and the Economic and Social Council of the United Nations (ECOSOC) (WHA58.22 and ECOSOC 2005/25). The programme aims at promoting the availability, affordability, accessibility and rational use of controlled medicines; it addresses all aspects that act as barriers in obtaining controlled medicines for medical treatment and provides normative guidance, development and dissemination of internationally recognized standards for treatment, policy analysis, as well as training and support in drafting national action plans for improving access to opioid medicines. The ACMP, among others, collaborates with the WHO Collaborating Centre for Pain and Palliative Care, with the European Association for Palliative Care (EAPC), the International Association for Hospice and Palliative Care (IAHPC), the International Observatory on End of Life Care (IOELC), Human Rights Watch and Harm Reduction International (HRI).

Health effects due to drug prohibition

The creation of a “black market” for illegal substances is one example of an unintended, although not unexpected, effect of the ban on drugs. This unlawfulness

is likely to have consequences for the types, prices and qualities of the goods offered on the illegal market and may also cause stigmatization and negative social effects, all of which may lead to adverse effects on users’ health.

Table 2 – Health effects due to enforcement of drug prohibition

Mechanisms	Unintended Consequences	Users	Non-users	Possible interventions (PI)
Substance displacement to more hazardous but “legal” drugs	Increased health risk due to unknown, often dangerous and potentially lethal substances	X		<p>PI 6: Develop prevention strategies: raise awareness, provide relevant information, education and communication targeting relevant groups</p> <p>PI 7: Develop regulations for NPS that take into account unintended consequences</p> <p>PI 8: Strengthen links between government bodies and civil society actors</p> <p>PI 9: Set up system for information exchange between countries on latest developments and practiced responses</p>
Elevated drug price	Increased risks of unsafe drug use (e.g. injecting) Less disposable income for food, health care, clothing, housing etc.	X X		<p>PI 6: (see above)</p> <p>PI 10: Increase capacities and upgrade current practices of low-threshold services⁵</p> <p>PI 11: Encourage peer-to-peer training and outreach work</p>
Variation in purity	Increased risks of mortality and morbidity	X		<p>PI 6, PI 10, PI 11</p> <p>PI 12: Ensure effective Naloxone distribution to medical and emergency services to prevent lethal overdosing</p>
Stigmatization	Discourages users from seeking help and support May lead to negative attitudes of health care providers Loss of self-esteem, impaired well-being of users and their associates.	X X	 X	<p>PI 13: Ensure participation of drug users in community and social life and ensure that their views are taken into account in decision-making on relevant issues</p> <p>PI 14: Implement anti-discrimination campaigns and provide specialised training to health care and social workers</p>

5. Including, but not limited to, scaling up Needle and Syringe Programs (NSP); Supervised drug consumption facilities (SDCF) Community-based outreach programs (CBO); Opioid substitution treatment (OST) and other drug treatments; Antiretroviral therapy (ART); Vaccination, diagnosis and treatment of viral hepatitis.

Substance displacement to more hazardous but “legal” drugs

One unintended consequence of the illegal status and law enforcement practices against certain drugs is *substance displacement*, where the control of one substance causes suppliers and users to move to another drug with similar effects but with fewer regulations attached (the so-called “balloon effect”). Drug suppliers, in an effort to avoid drug control and ameliorate the damages and losses related to law enforcement, design chemical compounds (“legal highs”) that mimic banned substances such as cannabis or cocaine; a small variation in the chemical structure of a banned drug can make them fall outside international drug control regulations.

In 2015, 100 new psychoactive substances (NPS) were reported for the first time to the EU Early Warning System (EWS), bringing the total number of monitored substances to 560 – with more than 380 (70%) of these detected in the last five years alone (5). The unprecedented emergence of these substances with unfamiliar compounds and unknown potency and toxicity has been related to an extensive list of harmful effects, including emergency room admissions and fatalities, increased overdoses, high tolerance, and withdrawal symptoms and dependence-producing properties (78).

Possible interventions (PI)

PI 6: Develop prevention strategies: Raising awareness, providing information, education and communication targeting relevant groups

Interventions may include targeted information, education and communication (IEC) to NPS users. IEC activities can include promoting reduced risk-taking and enhanced self-protection, improving care and management of medical crises such as overdose, influencing sub-cultural norms and attitudes in a more risk-reducing direction, and informing users about available health and social services and encouraging them to seek treatment. Awareness-raising campaign needs to be conducted on a systematic basis. These campaigns should be targeted, adequately resourced, and expanded and promoted if they are to meet their full potential and adequately protect children and young people from the harms associated with NPS intake.

Currently, there is limited knowledge of NPS use and user profiles. Early detection, screening and assessment strategies targeting NPS use are lacking in many countries (79). Due to this, identification of specific subgroups of young people that are especially vulnerable for drug use is becoming an important tool for directing or channelling policy responses and facilitating the development of effective interventions.

PI 7: Development of regulations for NPS that take into account unintended consequences

Many governments have developed prohibitive legislation to control NPS, targeting suppliers and dealers of these substances. Following the model of the international drug control conventions, individual substances are controlled once their harm has been assessed. They are often divided into schedules/lists that classify them individually based on medical use, their relative abuse potential, and their likelihood of causing dependence when abused. However, the legislative process associated with placing new substances under drug control legislation is often lengthy and may produce a prolonged time lag between NPS identification and implementation of control measures. Furthermore, there is limited scientific evidence on NPS toxicity, abuse liability and risks associated with long term intake. Additionally, these substances are often hard to identify due to their diverse branding and inconsistent product composition, which creates major challenges for developing effective policy responses.

One approach has been to schedule new substances into existing drug control laws or into other forms of legislation, such as consumer or health protection and trading standards legislation. However, as legislation in many countries requires strict and precise identification of every controlled drug, illegal producers aim to avoid control by continuously introducing “new,” but very similar products. This has in some cases resulted in a “cat & mouse” game between producers and enforcement agencies (80). As a response, legislators in some jurisdictions have introduced a so-called generic legislation, in which clusters of psychotropic drugs are banned preemptively. Yet, generic legislation may also result in unintended consequences and the search for an optimal response to NPS should be prioritized.

PI 8: Strengthen links between government bodies and civil society actors to exchange knowledge, existing practice and cooperation in joint action

An integrative community based system is one that develops synergies with local civil society organizations (CSOs), physicians, hospitals and demand reduction and health-promoting services of the government. Integration of these actors may increase the likelihood of successful implementation, increase service efficiency and reduce public expenditure, as it can provide a more comprehensive array of service responses that are aligned with individual needs and make use of the already available community resources and infrastructure (81).

PI 9: Improve the systems for information exchange between countries on latest developments and practice responses

The increasing prevalence of new psychoactive substances around the world poses serious cross-border

threats to health, which makes it necessary to enhance monitoring, early warning and responding. Early warning systems and networks are tools to identify potential threats, review new and existing legislation, and provide the basis for decision-making for temporary restriction measures. Improved information exchange and international forums for discussion of proposed enforcement initiatives, prevention measures and treatment strategies based on contextualized needs would be useful.

Some early warning systems already exist, such as the Early Warning Advisory (EWA) of the UNODC and the Early Warning System (EWS) of the EU. Still, strengthened systems, which manage to reduce the time span from the emergence of a new substance to a societal response, are needed. These systems could further boost the exchange of information among states to help them anticipate a potential public health threat, with a clear added value of alerting other states to potentially harmful substances that have emerged.

Elevated drug price

Drug producers and sellers want economic compensation for their costs and for the risks they face (risks for apprehension, violence, incarceration, etc.) when making an illegal commodity available to drug consumers. This leads to an elevated price level of illegal drugs. Increased prices usually lead to reduced consumption and is, as such, an intended effect of the drug policy. The high price level, however, may also induce some drug users to change their *mode of drug administration*. For instance, users may change from smoking or snorting heroin to drug injecting, as injection is a more cost-effective mode of consumption. Drug injection, however, is highly associated with an increased risk of premature mortality, communicable diseases and a range of other health-related problems.

Higher prices may also change the *types of drugs* that users consume. As mentioned above, drug producers have designed cheap synthetic drugs that mimic the desirable effects of well-known substances. This means that the high price level may cause an increase in health risks due to consumption of unknown, often dangerous and life-threatening synthetic drugs.

Finally, the high price level often implies that drug users, and especially problem drug users, spend a large share of their income on supporting their habit. Beyond the association with higher rates of income generating crime that will be discussed later in more detail, the elevated price level will reduce the money available for important commodities such as hygiene articles, food, clothing, shelter, and health care, negatively impacting drug users' health and quality of life.

Possible interventions (PI)

PI 6: Introduce, or expand, targeted information, education and communication (IEC) to drug users

As mentioned above, IEC activities towards drug users can include promoting reduced risk-taking and enhance self-protection, improving care and management of medical crises such as overdose, shaping sub-cultural norms, and informing users about available health and social services and encouraging them to seek treatment.

PI 10: Increase capacities and upgrade current practices of low-threshold services to respond more effectively to drug users' health and social needs, including interventions tailored to PWID

- ▶ **Treatment programs**, whether opioid substitution or drug-free treatment, will contribute to reducing negative consequences of elevated drug prices on drug injecting.
- ▶ **Needle and Syringe Programs (NSP)** aim to reduce the spread of infectious diseases such as HIV and hepatitis C among people who inject drugs (PWID). They often provide a range of services, in addition to offering sterile injecting equipment, including providing health information, education on drug use reduction, referrals for drug treatment, medical care and legal and social services. A review of 200 studies conducted by the WHO suggests that increasing the availability and utilization of sterile injecting equipment by PWID could reduce HIV infection substantially and that these programmes are cost-effective and have additional and worthwhile benefits apart from reducing HIV infection (82). These programmes may also be beneficial to non-users through reduced risk of sex-induced HIV transmission as they provide free condoms and safer-sex education.
- ▶ **Community-based outreach programmes (COP)** aim to obtain face-to-face contact with drug users, provide education on HIV risk-reduction, distribute condoms and bleach for disinfection of needles and syringes, promote referrals to other health services, improve access to risk assessment and HIV testing, and provide counselling and support community organising. Evidence indicates that outreach programmes are associated with reduced injection frequency and cessation of injecting, reduced reuse of needles and syringes, needle disinfection, increased condom use and reduction in unprotected sex and increased entry into drug treatment (83).
- ▶ **Supervised Drug Consumption Facilities (SDCF)** provide safe and hygienic environments for drug use. They are associated with reduced public order and nuisance problems and improved health for PWID through reduced

risk behaviour and their role as a gateway to other health care services (84). Still, SDCF are not sufficiently implemented, or are non-existent, in many EU countries.

- ▶ **Vaccination, diagnosis and treatment of HIV, viral hepatitis and tuberculosis (TB).** HIV, viral hepatitis and TB among drug users present a major health concern. Access to HIV, hepatitis and TB prevention, treatment, care and support is fundamental for realizing the universal right to health. Programmes such as antiretroviral therapy (ART) have the potential to reduce mortality and morbidity rates among infected people, improve their quality of life, act as a post-exposure prophylaxis (85) and prevent further transmission of HIV infection (86;87).

PI 11: Encourage peer-to-peer training and outreach work

Peer-training focusing on early involvement of emergency services, measures to access and use first aid, and means to reduce the risk for drug-related deaths should be encouraged and helped. Drug users' involvement can be an important peer-based education component for effective outreach interventions because peers can help to change social norms through education and by demonstrating changes in their own behaviour (88). Individuals who use drugs have valuable knowledge of drug use practices and patterns and are often able to help identify the most effective ways to reduce the spread of blood borne disease and to assist peers in other ways (89).

Acknowledging the fact that in most overdose cases other peer-users are the only witnesses (90), a set of peer-delivered first aid practice should be designed and promoted. These may include training on overdose prevention and response techniques for peers that may serve to improve peer-delivered first aid (91), campaigns to encourage drug users to call emergency services, training and information concerning overdose prevention and its management (training in the recovery position and CPR). One particular area in which peer-to-peer training is likely to be of significance is Naloxone distribution, as highlighted in a systematic review by the EMCDDA (92). Naloxone peer-programmes should include identifying and responding to opioid overdoses and essential first aid training. Most peer-training programmes included didactic and interactive components, opioid symptom recognition, response training and contacting emergency medical service. See PI 12 below for more details regarding Naloxone programmes.

Variation in purity

Given the illegal production and dealing of controlled substances and the lack of standardization and quality control, there is substantial variation in drug purity and samples are sometimes contaminated by toxic

ingredients. This implies an increased risk of morbidity and premature mortality, and fatalities have risen in connection with contaminated heroin, scopolamine poisoning, PMA within 'ecstasy' tablets and clostridium infections such as botulism (Bargagli et al. (93); Degenhardt et al. (54); EMCDDA (94;95)).

Possible interventions (PI)

PI 6: Introduce, or expand, targeted information, education and communication (IEC) to drug users

PI 10: Increase capacities and upgrade current practices of low-threshold services to respond more effectively to drug users' health and social need, including interventions tailored to PWID

PI 11: Encourage peer-to-peer preventive work

PI 12: Ensure effective Naloxone distribution to medical and emergency services to prevent lethal overdosing

The majority of drug-induced deaths are caused by the intake of opioids such as heroin and methadone (96); consuming these drugs by means of injection increases the risk of premature mortality. Naloxone is an opioid antagonist, which blocks the actions of opioid medicines and has long been used in the emergency treatment of opioid overdose (97). It counteracts the depressive respiratory effects of opioids and can bring an overdose patient back to consciousness within minutes following its administration. Despite WHO guidelines (98) and its recommendations for available naloxone kits for reducing the mortality rates, the antidote is currently available in less than a third of the 28 EU Member States (5). Action is urgently needed to improve take-home naloxone availability.

Education and training for healthcare professionals, drug users and laymen concerning administration of naloxone are necessary. Drug workers should receive updated overdose information and training as part of their continuous professional development. Providing naloxone kits to laypersons reduces overdose deaths (99), is safe (100), and is cost-effective (101). The US and international health organizations recommend providing naloxone kits to laypersons who might witness an opioid overdose, to patients in substance use treatment programs, to persons leaving prison and jail, and as a component of responsible opioid prescribing (98;102).

Health effects of stigmatization

Individuals who are discriminated against because of preconceived judgments based on their appearance, disabilities or lifestyle are victims of stigmatization. Drug users often experience stigmatization in terms of marginalization and social exclusion. Stigmatization harms individuals' self-esteem and well-being. Drug users may experience reduced access to health and social services because of the stigmatization related

to their drug use and discrimination may hinder treatment seeking and service utilization.

According to the WHO many people with drug use disorders do not receive effective treatment and care (103). Until recently, drug dependence has not been recognized as a health problem in society at large, and stigma and discrimination associated with drug dependence have become major barriers to appropriate treatment. Governments should, as a matter of policy priority, identify and provide equitable medical care and social assistance to all in need, particularly to vulnerable individuals and groups facing exclusion. This can be achieved by adjusting or developing clearly formulated treatment guidelines.

Furthermore, stigmatizing attitudes towards people who use drugs may also exist among staff in health-care services. This can be a barrier for access to, and deliverance of, effective treatment for drug users and further stigmatize individuals with drug use problems or with health problems such as hepatitis and HIV infection (104;105). Studies have identified that some health-care providers hold negative beliefs about drug users, for example that they overuse health care resources, do not invest in their own health, abuse the health care system through drug-seeking and diversion and fail to adhere to recommended treatment and care (106).

Stigmatization may also affect the health of non-users in terms of marginalization and social exclusion of drug users' next of kin. Children, parents, partners and friends of drug users may experience health problems as a result and they may be discouraged from seeking adequate help from health care services and providers.

Possible interventions (PI)

PI 13: Ensure participation of drug users in community and social life and ensure that their views are taken into account in decision-making

In the development and implementation of drug policies at the national and international level, active and meaningful involvement of civil society, non-governmental organizations and people who use drugs should be requested. Governments are encouraged

to support the initiatives of people who use illegal drugs and provide supporting mechanisms for active involvement of drug users in the decision-making process, program development, implementation, and evaluation of drug-related interventions.

PI 14: Implement anti-discrimination campaigns and specialized training for health care, justice and law enforcement

To foster diversity and anti-discrimination policies, increase knowledge, understanding and respect for human rights, and encourage social inclusion of individuals with drug use problems, authorities are encouraged to develop public campaigns. The goal of this is to raise public awareness and expand the knowledge base on harmful consequences of stigmatization and discrimination, strengthen vulnerable groups' human rights, and encourage citizens' active engagement. Additionally, this would foster a dialogue on the effects of current policies on individuals' health, rights and safety (107). Authorities are also encouraged to develop targeted specialized trainings and academic curricula for those working at the forefront. This may include people in health care (doctors, nurses, social workers), the justice sector (judges, prosecutors, administrative staff) and law enforcement.

Health effects resulting from enforcement actions

Some unintended effects are caused by the legal ban substances, while others are caused by the method in which drug laws are enforced. Drug control actions, such as arrests, border controls, and ID-checks of suspected drug offenders, imply direct and face-to-face contact between law enforcement agents, the general public and people involved with drugs. Maintaining the balance between enforcing laws and protecting rights and health of individuals, including drug users, is demanding and challenging. Law enforcement officers are constantly confronted with these challenges in their daily practice. While being an important and necessary part of the drug control, these actions may also lead to some severe, unintended health consequences.

Table 3 – Health effects resulting from enforcement actions

Mechanisms	Unintended Consequences	Users	Non-users	Possible interventions (PI)
Counter-acting effects on health and utilisation of health care and harm reduction services	Increase the risk for: – Deterioration of health status – Spread of HIV/AIDS and other infectious diseases for drug users and their sex-partners – Users abandoning other users in need of emergency aid due to fear of apprehension	X X X	X X	PI 6, PI 10, PI 11, PI 12 PI 15: Include psychosocial support and preventive harm reduction practices in training curricula for prison personnel and police services PI 16: Implement community based policing and prevention programs PI 17: Develop and implement police service performance indicators based on public safety and health objectives PI 18: Introduce referral schemes for available treatment and low threshold services PI 19: Encourage witnesses to call health agencies for users in need PI 20: Set up a centralized database for systematic monitoring of specific needs of different drug user groups
Physical contact between law enforcement agents and suspects of drug law offenders	Risk of inappropriate use of force, violation of rights, physical and mental harms and distress	X X		PI 15, PI 16, PI 17 PI 21: Implement mechanisms for accountability for law enforcement officers PI 22: Develop independent and transparent complaint mechanisms
Barriers to implementing appropriate treatment and low-threshold services in detention (prison, pre-trial detention, police custody, etc.)	Increased risk of health problems such as HIV/AIDS, Hepatitis C, tuberculosis and other infectious diseases	X	X	PI 23: Provide relevant treatment and rehabilitation services in prisons, detention and facilities for refugees and immigrants PI 24: Facilitate adequate vaccination programs and prophylactic measures to drug users and their associates

Counter-acting effects on health and utilisation of services

In recent years, studies have examined the potential impact of police presence on drug users’ access to health services. They suggest that periods of intensified police activity are associated with reluctance of PWID and other drug users to seek medical assistance out of fear of arrest, as well as and decreased attendance at voluntary treatment programs and needle exchange services (108-111). This may seriously affect drug users’ health and social wellbeing.

Police activity has also been associated with increased syringe sharing among PWID. Despite research findings which indicate that access to sterile syringes is a key factor in preventing the spread of HIV (112), police arrests and confiscation may in some countries prevent PWID from approaching these services or to carry safe injection and bleach kits (110;111;113-116). Further, in some cases, police have destroyed injecting equipment or forced drug users to throw them away (117). There are also studies suggesting that injecting drug users are forced to modify their injection practices in an effort to consume the drug

before police confiscate it. Studies indicate that PWID are more likely to share injection equipment due to the rush and fear of being caught by police and are less likely to clean injection sites prior to injection or to dress wounds afterward. This rush during the administration process often means skipping important steps of the preparation phase (118); drugs may be mixed without first being heated to kill bacteria and filtered to remove impurities (119). Rushing may also increase risk for vascular damage (120) and overdose since the drugs are injected quickly and not tested for strength first.

Further, displacement of drug users to new neighbourhoods is sometimes a result of police interventions. This may lead to an increase in public injecting, unsafe syringe disposal (121-124) and increased risk of infectious diseases, which may in turn threaten both community cohesion and public health. In the US and Europe, displacement often generates a so-called “shooting gallery” (125). Without sufficient access to health promoting services providing clean injection equipment and other necessary items, displacement increases the risk of infectious diseases and premature mortality (126-131). The spread of HIV and other blood borne diseases is also a threat to non-users. Relatives, partners, friends, sex-trade clients, health personnel and others in regular contact with PWID run a risk of being infected.

Possible interventions (PI)

PI 6: Develop prevention strategies: raise awareness, provide relevant information, education and communication targeting relevant groups

PI 10: Increase capacities and upgrade current practices of low-threshold services to respond more effectively to drug users’ health and social needs,⁶ including interventions tailored to NPS users

PI 11: Encourage peer-to-peer work, and promote peer-training in outreach work, including measures to reduce drug-related deaths, early involvement of emergency services, and measures to access and use first aid

PI 12: Ensure effective Naloxone distribution to medical and emergency services to prevent lethal overdosing

PI 15: Include psychosocial support and preventive harm reduction practices in training curricula for prison personnel and police services

Although police work has traditionally played a fundamental role in supply reduction, there is an increasing awareness that police also may also play a major role

6. Including, but not limited to, scaling up Needle and Syringe Programs (NSP); Supervised drug consumption facilities (SDCF) Community-based outreach programs (CBO); Opioid maintenance therapy (OMT) and other drug treatments; Antiretroviral therapy (ART); Vaccination, diagnosis and treatment of viral hepatitis.

and actively participate in effective implementation of health promoting strategies. As gatekeepers between the criminal justice system and the broader community, police can act as a regulatory mechanism and coordinate programs that aim to reduce drug-related harm to individuals and communities. Police can refer people to drug treatment agencies or other types of assistance, act as a useful resource for drug education programmes and provide a supportive environment for needle exchange programmes by not targeting the vicinity around these programmes to arrest users.

In order to better equip law enforcement officials for their important role in public health and increase their awareness of the health and welfare implications of their actions, different levels of specialized harm reduction training are required. Training can be incorporated in academia with a standardized curriculum for different law enforcement fields. Best practice training manuals and guidelines for law enforcement officials should be developed based on the available evidence on health promoting interventions. These may include topics such as the impact and contribution of law enforcement on public health and human rights, referral pathways and integrative care with cross-agency collaboration and synergies with health services and CSOs, and quality assurance and regular information updates.

PI 16: Implement community-based policing and prevention programs

Community-Based Policing (CBP) is a strategic initiative that focuses on police building ties and synergies with members of the community. It is designed to support active collaboration between law authorities and local communities by enhancing their capacity and competency to effectively respond collaboratively to contemporary challenges. CBP represents a collaborative model for the reduction of adverse mental health, drug- and crime-related consequences, by using community-based assets that make efficacious use of available resources to meet identified needs within a framework that promotes sustainable and place-specific interventions (132). CBP personnel adopt a dual role as both police officers and social agents. As police officers, they maintain public tranquillity, law and order, protect individuals’ fundamental rights and freedoms, prevent and detect crime, and reduce fear. As social agents, they may provide assistance and services to the public, harm reduction and treatment referrals, deliver naloxone to an overdose case or participate in local health campaigns, and promote healthy life styles.

This mutually-beneficial partnership with grassroots community resources (multidisciplinary partnerships with community organizations, other government agencies, non-profit and SCOs, businesses, the media, and individual organisations), advances the capacity to adequately respond to current challenges and strengthen community resilience.

PI 17: Develop and implement police service performance indicators based on public safety and health objectives

The development and implementation of performance indicators for police services based on objectives beyond traditional police work, such as clearance rate, could facilitate and complement public health goals, as law enforcement agents would be a supplementary component in addressing the health and social needs of vulnerable populations. This involves moving away from simplistic metrics such as numbers of drug related arrests, drug seizures and hectares of drug crops eradicated towards indicators of community health and wellbeing, such as reductions in market related violence and corruption, improvements in public health and economic development, and strengthening of community institutions. Police service performance indicators should, when possible, support the broader agenda of public health.

PI 18: Introduce referral schemes to available treatment and low threshold services

Drug Referral Schemes (DRS) are partnerships between police and local drug services that use an arrest as an opportunity for independent drug workers to offer arrestees help and refer them to appropriate treatment services, primarily as a means for reducing their drug-related offences. In addition, they may also provide a route to HIV testing and counselling services, antiretroviral therapy (ART), prevention and treatment of sexually transmitted infections (STIs), vaccination, diagnosis and treatment of viral hepatitis, and prevention, diagnosis and treatment of tuberculosis (TB). DRS allow specially trained drug workers (known as drug/arrest referral workers) to contact arrestees while they are held in police custody and grant them sufficient time to interview the arrestee and complete a 'needs assessment' form, which will be the basis of a treatment and care plan.

PI 19: Encourage witnesses to call health agencies for users in need

Police can avoid arrests at the scene of a drug overdose and by doing this, encourage people to call for medical help without delay or fear of prosecution. Drug users should also be able to call ambulance and health services anonymously.

PI 20: Set up a centralized database for systematic monitoring of specific health needs of different drug user groups

The risks of harmful consequences of substance use vary substantially depending on the type of substance and pattern of use, including frequency, amount and concurrent use of several drugs. Knowledge of the quantitative and qualitative patterns of drug use is a key element for the development of drug policies tailored to high-risk subgroups, their individual needs and the contextual demands. At the European level, substance use monitoring is based on procedures

organized by the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) for illegal drugs and by the European Medicines Agency (EMA) for prescription drugs, in the context of pharmacovigilance. In addition to information on user groups and their using patterns, an integrative system for assessing the potential for abuse of various psychoactive substances, as well as the consequences of that use in terms of morbidity and mortality, is needed.

A centralized surveillance system would be helpful for developing policies tailored to individuals' needs and contextual demands and to assess the impact of measures for minimizing the risk of abuse.

Physical contact between law enforcement agents and suspects of drug law offenders

Practical policing and physical contact between law enforcement agents and suspected drug law offenders presents a risk of inappropriate use of force, violation of human rights, as well as physical and mental harm and distress. Each of these elements is likely to have adverse health effects for victims (133). Violence and excessive use of force against drug users have been reported in various regions (134-138), as have human rights violations, including extortion of suspected drug users, forced detoxification and mandatory HIV testing (139;140).

Possible interventions (PI)

PI 15: Include psychosocial support and preventive harm reduction practices in training curricula for prison personnel and police services

PI 16: Implement community -based policing and prevention programs

PI 17: Develop and implement police service performance indicators based on public safety and health objectives

PI 21: Implement mechanisms for police accountability and make them visible

Police and law enforcement agencies are the most visible manifestation of government authority. The United Nations has articulated a set of principles for police agencies that included applying the law equally to all citizens, guidance on the use of force, guarantees of safety and fair treatment of persons detained or arrested, allowing the community to hold law enforcement officials accountable for their actions, and protecting the rights of women, juveniles, and refugees (141). Democratic policing requires that the police consider themselves accountable to citizens, their representatives, the State and the law.

Police services should have their powers checked and controlled by the public through accountability processes, and "efficient measures to ensure the integrity

and proper performance of police staff” need to be developed. Performance evaluation and accountability reports are likely to be important tools for police executives in assessing and responding to claims of racial bias, patterns of abusive behaviour, or failure to protect.

PI 22: Develop independent and transparent civilian complaint mechanisms

The existence of a citizen oversight body with responsibilities for handling complaints against the police is a core accountability and transparency requirement and a prerequisite in a democratic environment. A standard statutory purpose, in jurisdictions where police complaints systems have been codified, is to hold law enforcement officials accountable in criminal and disciplinary proceedings on the basis of evidence obtained in the investigation of a complaint (142).

An effective police complaints system may reduce the risk for the development of a culture of impunity. A complaints system serves as a means by which police, prosecutors and courts identify acts, and omissions, of criminal behaviour, misconduct and below standard performance on the part of law enforcement officials. Cultures of impunity are liable to develop as a result of the failure of police managers, prosecutors and courts to take appropriate action against an officer, on one hand, or the reluctance of citizens to complain because of their lack of confidence in the complaints system, on the other hand. Oversight institutions may include the executive (policy control, financial control and horizontal oversight by government agencies), the legislature (members of parliament, parliamentary commissions of enquiry), the judiciary, as well as human rights commissions, civilian complaint review boards or independent ombudspersons. Furthermore, the media can play an important role in providing the public with information on police activities.

Barriers to implementing harm reduction programs in custodial settings

In many countries, drug-related offences represent one of the main reasons for imprisonment and drug users constitute a large share of the prison population (13). Although some prisoners stop or reduce their use of drugs upon entry in prison, others initiate drug use or engage in more damaging behaviours when they are incarcerated (143). Drug use and injection often continues while imprisoned. Additionally, interventions that have reduced injection and injection-related health risks in community settings often remain unavailable in prison (144;145). Access to sterile syringes is often extremely limited. Research suggests that 50% or more of drug users report injection while in prison (146-148), and a substantial proportion of inmates injecting drugs engage in needle and syringe sharing during imprisonment. Needle and syringe sharing increases the risk for transmitting infections and health related problems such as vein injury, scarring, and bacterial

and viral infections. Worldwide, levels of HIV prevalence within inmate populations tend to be much higher than in the general population (149).

Further, discontinuation of treatment due to incarceration or following incarceration may lead to severe health consequences for sentenced offenders. These consequences result either from the non-availability of treatment options in custodial settings for inmates who have been in treatment prior to incarceration, or as a result of not being able to continue treatment following release. The discontinuation of treatment following release can lead to the use of street drugs again, resulting in a high risk of overdosing and death. The same risks exists vice-versa when prisoners cannot continue treatment in prison. Additional risks may be incurred in short-term incarceration, including police arrest and pre-trial detention, where often no adequate treatment options are provided (150).

A principal problem in this respect is inadequate, or lack of, coordination and cooperation between prison health systems and public health systems outside prisons. Often health care in prison settings operates in complete isolation from the general health care system, hampering the quality and continuation of health care following release. This may lead to delays in referral for treatment, and as a result, necessary continuation of care is not ensured. In addition, a lack of adequate healthcare services in prisons significantly hinders the social reintegration of prisoners, while leading to the spread of transmissible and life-threatening diseases in prisons and the community (151).

The United Nations basic principles for the treatment of prisoners recognize that “prisoners shall have access to the health services available in the country without discrimination on the grounds of their legal situation” (United Nations General Assembly, 1990).⁷ Still, in many EU countries, authorities are reluctant to implement harm reduction programs in settings like prisons or detention centres. This predisposes marginalized groups to an increased risk for HIV/AIDS and other infectious diseases, as they are then excluded from public health interventions and services. Lack of access and availability of health care and harm reduction services in prisons raises serious ethical and moral concerns.

7. United Nations standard minimum rules for the treatment of prisoners (152) and United Nations rules for the treatment of women prisoners and non-custodial measures for women offenders (the Bangkok Rules) (153). The revised Guideline 6 of the United Nations International guidelines on HIV/AIDS and human rights (154) states that States should “take measures necessary to ensure for all persons, on a sustained and equal basis, the availability and accessibility of quality goods, services and information for HIV/AIDS prevention”. The World Health Organization (WHO) 1993 Guidelines on HIV infection and AIDS in prisons state (155): “In countries where clean syringes and needles are made available to injecting drug users in the community, consideration should be given to providing clean injecting equipment during detention and on release to prisoners who request this.”

Further, introducing harm reduction and health promoting measures in prisons also protect the public, as most inmates are in prison only for relatively short periods of time and are then released into their communities. HIV/AIDS prevention and harm-reduction measures will also protect the general population, while denied access will put non-users at risk for these harms.

Possible interventions (PI)

PI 23: Provide relevant treatment and rehabilitation services in prisons, detention and facilities for refugees and immigrants

As recommended by the WHO, UNODC and UNAIDS, governments may introduce, or expand, syringe and needle exchange programs (NSP) in order to avoid and prevent the threat of HIV epidemic among prisoners who inject drugs. Prisoners should have easy, confidential access to NSP, and prisoners and staff should receive information and education about the programmes and be involved in their design and implementation. This should not undermine or impede the provision of drug dependence treatment programmes, including OST, but act as complementary intervention safeguarding drug users' health status. Governments could introduce OST in the prison health strategy as it provides an opportunity for prisoners to avoid needle use and syringe sharing.

PI 24: Facilitate adequate vaccination programs and prophylactic measures to drug users and their associates

Vaccination is recommended for people where exposure to body fluids or contaminated devices may occur, including health care workers, people who inject drugs, men who have sex with men, incarcerated people, people with a history of sexually transmitted infection, and people who have unprotected sex (156). HBV vaccinations can significantly reduce the chance of infection

(157) and offer protection against infection for more than 90% of healthy individuals (158). According to the International Standards for the Treatment of Drug Use Disorders by UNODC and WHO (159), treatment services should offer hepatitis B vaccinations to all opioid-dependent patients. However, in many countries, only limited efforts have been made for the practical implementation of hepatitis B vaccines. Currently no vaccinations exist against HIV or HCV.

Effects of high profit margins and price levels of illegal drugs

The UNODC estimates that illegal drugs account for approximately 20% of global crime proceeds and are equivalent to about 0.6–0.9% of global gross domestic product (160). In 2013, the retail market for illicit drugs in the EU is estimated to have been worth, at minimum, EUR 24 billion (11). The drug market is constantly developing and adapting to emerging trends and technical innovations. In recent years, illegal drug markets have also been found on Internet-based platforms. Some Internet sales take place through open surface websites, while other transactions are made through the “darknet”, an encrypted part of the Internet (11). When coupled with the use of crypto-currencies, both dealers and buyers are difficult to identify and locate for legal authorities.

Illegal profits flow outside regular financial systems and are therefore exempt from financial control, accountability, and taxation. The development of illegal markets thus has wide-ranging consequences for society and for individuals, as it affects the legal economy, national and international security, governmental institutions and society at large. Further, the high price level of illegal drugs has consequences for drug users as it makes it harder to support their habit through legal means.

Table 4 – Non-health effects of illegal drug trade

Mechanisms	Unintended Consequences	Users	Non-users	Possible interventions (PI)
High profit margins	Attract and finance organized crime groups, including terrorist activities	X	X	PI 25: Securing political commitment for evidence-based responses to confront trafficking, sales, and organized crime
	Increased risk of trafficking and corruption	X	X	PI 26: Strengthening international cooperation, including civil society organizations
	Money laundering activities	X	X	PI 27: Focusing law enforcement interventions on production, trafficking, and organized crime
	High level of violence, criminal motivation and risk-taking	X	X	PI 28: Introducing legal instruments against money laundering and asset seizures
High price levels	Drug users commit acquisitive crime to finance their drug consumption	X	X	PI 6, PI 10, PI 11, PI 12 PI 29: Improved means for rehabilitation of offending drug users

Illegal drug trade leads to high profit margins

Illegal drug markets are attractive to criminals and organized crime groups because of the high profit margins and because the money is diverted outside legal financial flows. Both factors contribute to explaining the observed links to other organized crime operations. The substantial amount of drug-related money passing in undetected flows around the world makes this black market of high interest to other organized crime networks, notably those engaged in money laundering, human trafficking, arms smuggling, and terrorism. Drug-related and non-drug-related crimes are connected in different ways. Terrorist groups see in the illegal drug market an opportunity to gain funding for their activities, causing, as one example of direct damage, strained international relations (161). Another example is when the profits generated in illegal drug markets encourage diversification into other illicit activities, and the networks and logistical infrastructure established for this purpose are utilized to also traffic other commodities (11).

The diversion of significant sums of money causes economic damage to financial systems and government budgets alike. Corruption of public officials, from low-level law enforcement officers at one end of the spectrum to high-level members of the judiciary and politicians at the other end, is a systematic feature of all illicit markets. Drug markets have been identified to be one of the two most corruptive influences in Europe, with organized crime groups most commonly targeting low-ranking police and public administration employees (11). The aim of corrupting law enforcement agents is normally to obtain information on investigations or operations, or to protect on-going illegal activities. Pressure from corrupt magistrates or prosecutors may, for example, obstruct police investigations of influential individuals who are members of criminal networks. The corruption of government officials at all levels, and most particularly in the sphere of law enforcement agencies, judicial institutions, and prison systems, is an important factor for ensuring the smooth operation of illegal markets. This, consequentially, produces a corrosive effect on public institutions, undermining governmental authority (11).

A significant proportion of money laundering activity is cash-based, low-tech, and labour intensive. The business sectors most targeted include gastronomy, the gambling and casino industry, retail trade, and especially the food, clothing, and transportation sectors (162). This type of 'low level' money laundering accounts for approximately 20% of all laundered funds (163). The drug trade generates large sums of money that will eventually have to be transferred into legal financial markets. While it is difficult to estimate the extent of illicit financial flows, drug trafficking

is assumed to be a major part of all illicit funds in Europe. Illicit drug trade was estimated to account for roughly 20% of all crime proceeds and about 50% of all transnational organized crime proceeds in 2009 (160). It is estimated that illicit drug markets in the EU (heroin, cocaine, cannabis, amphetamines and ecstasy) account for one-quarter of the proceeds from all illicit retail markets (162). The EMCDDA assumes that about 44% of retail profits are laundered from European drug markets and estimates that, based on that assumption, as much as EUR 11 billion arising from the drug retail trade in the EU might be laundered annually (11).

Violence may be seen as an inherent and systemic component of the illicit drug market and can be the result of different factors. First, it may be a result of the effects that drugs have on individual users, such as violence stemming from drug-induced psychosis, or as a part of an acquisitive crime, such as robbery. Further, the production and trafficking of illicit drugs are linked to violent crimes, including homicides (gang wars, etc.). Violence can be used to gain or maintain market shares or to resolve disputes (164;165). This is related to the lack of legitimate problem-solving mechanisms in illegal markets. Conflicts involving parties who are both involved in criminal acts are bound to be solved outside of the legal system, hence the increased probability of violent solutions.

The influence of illegal drug trade on organized crime, terrorism, corruption, money laundering and market-related violence all have substantial negative effects on society and individual members, including drug users. Drug users may be affected by organized crime, terrorism, and other illicit activities as much as other societal members, but in addition, they may be more directly affected through their drug-related activities. In a setting of corruption, for instance, corrupted law enforcement officials may encourage drug users to buy their way out of criminal investigation through the payment of bribes.

Possible interventions (PI)

PI 25: Securing political commitment to confront trafficking, sale and organized crime

To ensure the required human and economic resources to confront and reduce trafficking, sale and organized crime, political commitment is needed. The different forms and shapes of illegal drug markets require a coordinated multi-agency supply reduction approach. Applied measures and interventions should be evidence-based. While supply reduction is a key drug policy area, there are large gaps in the existing knowledge base (166). The on-going work by the EMCDDA on developing supply reduction indicators constitutes an important step towards more evidence-based and effective policies in this field (167).

PI 26: Strengthening international cooperation, including civil society organisations

Collaborative action between civil society and public authorities leads to more dynamic, efficient, and effective development and implementation of drug policies and action plans. Particularly in drug policy, which influences such a wide range of fields of action and aspects of concern, crosscutting or network-based civil society actors can often overcome sectorial barriers much easier than actors in public administration can. Additionally, cooperating with civil society ensures that citizens are not alienated from the political process, a concern of modern democracies. Input from civil society creates added value to the policy planning and implementation process, enhancing the legitimacy, quality, understanding, and longer-term applicability of policy initiatives. Civil society organizations provide a wide range of contributions for policy development and implementation (168).

International networking between different stakeholders and agencies at the professional level, such as the Pompidou Group's Airports Group, International Network on Precursor Control, and South East Europe Cooperation, set examples of practical, enhanced, and flexible cooperation models.

PI 27: Focus on law enforcement against drug production, trafficking and organized crime

In order to increase the effectiveness and efficiency of law enforcement, many governments are encouraged to focus their law enforcement activities on the production of drug, trafficking, and organized crime structures (1). Greater cooperation, information, and intelligence exchange between specialized law enforcement teams, which focus on criminal groups trafficking these different types of drugs, should be facilitated to ensure the absence of gaps in the strategic analysis and consequent law enforcement responses (11).

PI 28: Introducing legal instruments against money laundering and asset seizures

The identification, disruption, and dismantling of serious organized crime groups involved in drug trafficking, money laundering, and corruption are key elements of law enforcement activities in Europe. Different legal instruments, such as tracking, freezing, seizing, and confiscating assets exist on both national and international levels (169). Judicial cooperation in cross-border money laundering cases is paramount to making these instruments work effectively. Furthermore, it should be kept in mind that for money laundering to be effective, enablers working in the financial and legal sectors are needed. One of the key enabling factors in these sectors is negligence or incompetence in applying anti-money laundering measures (170). Authorities should be attentive to this and must ensure appropriate over-sight procedures and mechanisms.

Illegal drug trade leads to high price level

As mentioned in 3.2.2, economic compensations for the risk of severe legal responses facing those involved in drug manufacturing and trafficking have led to an elevated price level for illegal drugs. In addition to the health consequences already discussed, the high price level also makes it difficult for drug users, and problem drug users in particular, to support their habit by legal means only. Required funds are frequently obtained through various forms of acquisitive crime, prostitution and drug dealing, such as small-scale dealing as a means of obtaining drugs as payment-in-kind. Fraud, property crime, and robbery are commonly mentioned as income sources by drug users (80) and some studies suggest that robberies increase as a consequence of price hikes in illegal drug markets (171). These unlawful income-generating activities create substantial harms and costs to society at large (172) and have negative repercussions on the conduct and economic behavior of many drug users. They may also lead many users to circumstances in which they are more exposed to the risk of being coerced into sexual exploitation and trafficking (173).

As intended, reduced availability and high price levels add to the complexity of obtaining drugs and are likely to reduce consumption. Users of drugs like heroin and amphetamine respond to price increases by reducing their consumption (174), but the addictive property of many substances may lessen this response to some extent. One result of the elevated price level, however, is that users spend a large share of their disposable income and time trying to obtain drugs and funds, while spending less on daily necessities such as food, clothing, housing, and other vital needs.

Possible interventions (PI)

PI 6: Develop prevention strategies: raise awareness, provide relevant information, education and communication targeting relevant groups

PI 10: Increase capacities and upgrade current practices of low-threshold services to respond more effectively to drug users' health and social needs,⁸ including interventions tailored to NPS users

PI 11: Encourage peer-to-peer work, and promote peer-training in outreach work, including measures to reduce drug-related deaths, early involvement of emergency services, and measures to access and use first aid

PI 12: Ensure effective Naloxone distribution to medical and emergency services to prevent lethal overdosing

8. Including, but not limited to, scaling up Needle and Syringe Programs (NSP); Supervised drug consumption facilities (SDCF) Community-based outreach programs (CBO); Opioid maintenance therapy (OMT) and other drug treatments; Antiretroviral therapy (ART); Vaccination, diagnosis and treatment of viral hepatitis

PI 29: Improved means for rehabilitation of offending drug users

In addition to various demand reduction PIs mentioned above, the adoption of measures such as treatment, education, and training, which can be used as alternatives to, or in addition to, conviction or punishment for drug-related offences, constitutes an important means for the rehabilitation of drug users who are in conflict with the law. It is also important for the avoidance of adverse and often long-term consequences that may result from a criminal conviction (see 3.5 below).

Effects resulting from stigmatization

Stigmatization, and subsequent responses such as discrimination and marginalization, may result from:

- ▶ Using illegal drugs/criminal behaviour
- ▶ Having a criminal record
- ▶ Having been imprisoned
- ▶ Having been apprehended publicly

The perception that drug users are ‘criminals’ can often lead to discriminatory behaviour towards them. There is an increasing concern among policymakers and people in general about stigmatization of drug dependence and subsequent discrimination of those dependent on drugs. Stigmatization of individuals dependent on drugs has been increasing in countries that have implemented austerity measures (175). The political and societal acceptance of dependence as a health condition, little different from other chronic diseases, appears to be severely undermined by the lack of knowledge and the existence of prejudice and stigmatization at all levels of society. Stigmatization may also affect recreational users of illegal drugs.

Table 5 – Effects resulting from stigmatization

Mechanisms	Unintended Consequences	Users	Non-users	Possible interventions (PI)
Stigmatization due to perception of drug users as criminals	Low self-esteem and reduced motivation for drug users to engage in economic activity and social life	X	X	PI 16 PI 30: Recognizing and implementing obligations under international and national legal instruments
	Limited or reduced access to community life and services	X	X	PI 31: Raising awareness on the consequences of not respecting the rights of drug users
	Potential exacerbation of already existing forms of discrimination	X	X	PI 32: Developing best practice manuals and anti-discrimination training for professionals
	Increased readiness to engage in low status or illegal activities	X	X	PI 33: Setting performance indicators to prevent discrimination and stigmatization
	Increased risk of arrest and pre-trial detention	X	X	PI 34: Offering employment opportunities and vocational training for drug users

Effects of stigmatization

A criminal label may lead drug users to self-identify as criminals (low self-esteem), and may also lead to others, such as employers, identifying users as criminals. Stigmatization stems from a process of internal and external identification, and may reduce both the opportunity and the motivation for participation in social life. For instance, socially-visible exposure to enforcement action, such as an apprehension, has the potential to harm a user’s reputation and self-esteem, leading to reduced motivation for achievement and participation in social life.

An interdependent relationship exists between drug dependence and unemployment and poverty. The stigma associated with drug use and its criminalization

can reduce a person’s employment prospects by reducing productivity and the chance of finding work. In turn, unemployment can cause stress and anxiety, financial difficulties, dissatisfaction and disaffection, all of which are risk factors for initiation, perpetuation, intensification, or resumption of drug use (176). This has been described as a process of “cumulative disadvantage” (177). Furthermore, discriminatory practices put in place by employers, which may be related to criminal records or social stigma as drug users, often reduce the chances of finding regular employment or in some cases make it impossible, particularly in times of high general unemployment. Many drug users are well aware of this stigmatization as their limited skills, poor or non-existent qualifications, and gaps in their work history may make finding employment

extremely difficult. This often leads to the conclusion that seeking employment is utterly pointless (178), and as a consequence, there is a high risk that the role of social outcast will be deliberately assumed. This may lead to users associating themselves with the world of criminals and criminal activity as a source of identification, belonging, and as a way of finding other opportunities to sustain a living.

The stigmatization and subsequent marginalization of individuals who regularly use drugs also has a negative impact on social relationships. Stigma and social exclusion can lead to the loss of human capital, as people who use drugs are unable to contribute to or participate in society and community (179). Drug use and its criminalization may drive users to the margins of society and create distance between them and their communities and families. Drug users who are criminalized may experience a weakening of social bonds to conventional society (180). This social maladjustment may, in turn, lead to recidivism and further drug use. Further, marginalization can contribute to drug use, just as drug use can contribute to the marginalization of some users. Indeed, drug use can cause deterioration in living conditions, while processes of social marginalization can be a reason for initiating drug use (181). Several risk factors for marginalization can be attributed to drug use, including unemployment, homelessness, reduced access to care services, incarceration, and sex work (181).

It is commonly acknowledged that drug users from certain ethnic groups or minorities may experience a double stigma. This is due to the prevalence of popular images that characterize visible minorities as habitual drug users, especially because many illegal drugs come from outside Europe. As the UNODC states, in the case of substance abuse, people often conveniently blame “foreigners,” “outsiders” or generic “others” for the spread of drugs and associated social problems (182). Existing data show, however, that there is little evidence for such perceptions to hold true. Information on drug use, patterns, and consequences within minorities remains scarce. Fear of stigmatization makes the collection and dissemination of data difficult. Thus, comparisons with the general population on levels of drug use are rarely possible.

Existing practices in criminal investigations, law enforcement, and criminal procedures vary across Europe, depending on existing laws and regulations, as well as on their interpretation. There are noticeable differences in regard to the risk of arrest and pre-trial detention of suspected drug users, dealers, and traffickers. Still, there appears to be a general tendency that people who are suspected of drug use or who are known users face a higher risk of arrest or pre-trial detention. This in turn leads to a higher risk of exposure to the adverse consequences of arrests and pre-trial detention, including stigmatization, possible loss of

employment or housing, and strain on social relations. These consequences affect both the drug users and their familial and social circles equally adversely.

Possible interventions (PI)

PI 30: Recognising obligations under international and national legal instruments

In this context, it is important to remember that governments have an obligation under international and national legal instruments to safeguard the fundamental standards of human rights and the rule of law, which also apply to drug users. As mentioned in chapter 1, these obligations are described by the Council of Europe (CoE) Convention for the Protection of Human Rights and Fundamental Freedoms and UN documents (8) and guarantees:

- ▶ The right to life
- ▶ The right to protection of health
- ▶ The right to non-discrimination
- ▶ The prohibition of inhuman or degrading treatment

PI 31: Raising awareness on the consequences of not respecting the rights of drug users

The consequences of not respecting the human, legal and social rights of drug users are diverse and comprehensive. Increased public attention and improved knowledge are needed to increase awareness by relevant stakeholders. Regular collection of appropriate data and sound analyses will help policy makers to take action.

One example is the collection of ethnicity and culture-related data. This may be a beneficial instrument for shaping drug policy interventions for specific target groups and may lead to an adoption of culturally-sensitive drug strategies. Such data can provide baseline information on the situation of minority groups, which will then form the basis for action and later help in evaluating the effectiveness of outcomes. Collecting relevant data does not need to be stigmatizing, but can help to avoid prejudice and discrimination. It also serves to assess the effectiveness of policies, so that any necessary changes and adjustments may be made (183).

PI 32: Developing best practice manuals and anti-discrimination training for professionals

European non-discrimination law, as codified by the EU non-discrimination directives and Article 14 and Protocol 12 of the European Convention on Human Rights, prohibits discrimination across a range of contexts and grounds. European non-discrimination law stems from these two sources as complementary systems, drawing on them interchangeably to the extent that they overlap, while highlighting differences where they exist. A handbook, provided by the Council of Europe with an extensive body of case law developed

by the European Court of Human Rights and the Court of Justice of the European Union in the field of non-discrimination, provides a highly useful and accessible starting point for developing national anti-discrimination manuals. The material contained in the handbook is intended to serve professionals, including judges, prosecutors and lawyers, as well as law-enforcement officers, and policy makers alike in the EU and Council of Europe Member States and beyond (184).

PI 33: Setting performance indicators for preventing discrimination and stigmatization

To ensure the effective implementation of antidiscrimination policy and strategy, performance indicators are an important and useful tool. These should be developed on different levels, including indicators on existing types and levels of discrimination of drug users, indicators of institutional and structural discrimination, and indicators on professional practices and perceptions (185). Audits on the basis of these indicators should be carried out within all relevant institutions and services (186). In practice, this would include law enforcement agencies, social and health services, as well as other institutions coming in contact with drug users, such as housing and employment agencies and welfare offices.

PI 34: Offering vocational training and employment opportunities for drug users

The relationship between drug use and employment status is complex and characterized by reciprocal

causality: drug use exacerbates the risk of unemployment, while unemployment may increase the risk of drug use. To break this cycle, different steps are necessary. First, the personal, health, lifestyle and other problems of drug users must be identified and addressed before they are ready for vocational training, work rehabilitation, and retaining paid employment (187). Following this, adequate educational offers are needed to improve poor educational records, and subsequently, professional training and qualification courses should be offered together with supported or assisted employment possibilities. This process should be accompanied by measures such as debt counseling and participation in self-help groups to support the individual stabilization process.

Effects of criminal records and imprisonment for drug offences

While the intended consequences of a criminal record remain valid in all respects, the unintended effects may reduce many social life opportunities and may have a significant effect on users' interpersonal relations. These consequences may include the alienation of family and friends and limitations in available social support. Further, the imprisonment of drug using offenders has significant unintended consequences, which may have major effects on the lives of and the rehabilitation opportunities for drug users.

Table 6 – Effects of criminal records and imprisonment for drug offences

Mechanisms	Unintended Consequences	Users	Non-users	Possible interventions (PI)
Limit opportunities due to criminal records	Reduced employability	X	X	PI 29, PI 34 PI 35: Restricting the content of criminal records provided for the purpose of employment, housing, etc. PI 36: Inter-agency coordination and cooperation between law enforcement, health and social services PI 37: Training prison staff and probation officers to assist drug users on probation in acquiring training opportunities, employment and housing
	Limited access to housing	X	X	
	Limited educational opportunities	X		
	Restricted mobility due to travel restrictions and loss of driver licence	X		
	Increased risk of stigmatization and social exclusion	X	X	
	Increased risk of being subject to police surveillance and investigations	X	X	
Social confinement and shattered ties with the community due to imprisonment	Shattered ties with individual social support networks	X		PI 23, PI 24, PI 29, PI 34, PI 35 PI 38: Provide for drug fee wards and therapeutic communities in prisons PI 39: Strengthen links between prison authorities and local authorities
	Increased risk of reoffending and relapse	X		
	Exposure to violence and health risks related to prison subculture	X	X	

Limit opportunities due to criminal records

When caught by law enforcement officers, offences such as drug trafficking, dealing or drug production usually result in a criminal record for the offender. In several countries, however, this may also occur if a problem drug user or a recreational user is being apprehended for drug use/possession. For youths in particular, who may be using drugs because they are risk-seeking, oppositional, and/or vulnerable, the negative effects of a criminal record can be substantial and long-lasting. For all drug offenders, however, having a criminal record for drug-related offences may have several severe but unintended effects.

Criminal records, especially when containing drug-related offences, are frequently an obstacle to obtaining employment. For many professions or types of work places, a drug-related offence is an exclusion criterion for employment. This comes in addition to the negative effects of stigmatization resulting from drug criminalisation. Further, when seeking to rent a place to live, a criminal record may also be an obstacle. For many landlords, the existence of a conviction for a drug-related offence constitutes a sole and single ground to refuse tenancy. Thus, the housing market has increasingly become a problem for drug users and an obstacle for re-integration of problem drug users. Furthermore, criminal records can also influence on educational opportunities. Some educational institutions require the presentation of a criminal record, and drug-related offences constitute an exclusion criterion. In some countries, courses leading to degrees in medical or pharmaceutical studies exclude people with a criminal record on drug-related offences from entering studies or receiving licences for practice.

Visa-regimes and entry requirements in several countries exclude people with prior convictions for drug use from entering, be it for private, educational, professional or other purposes. Further, recorded convictions for drug-related offences often lead to the stigma of being addicted and a criminal, with the entailing consequences of marginalization and exclusion from mainstream social and community life. This in turn can lead to reduced accessibility of social and health services (see 3.2 above). Furthermore, people with prior drug use convictions run the risk of increased police surveillance and of becoming suspects in investigations.

Possible interventions (PI)

PI 29: Alternative sentencing options

PI 34: Offering vocational training and employment opportunities for drug users

PI 35: Restrictions of content of criminal records provided for public purposes

To mitigate the adverse effects of criminal records, legislation can include statutes of limitations (188):

- ▶ Certain types of (minor) drug offences can be removed from the criminal record after a certain period of time.
- ▶ Warnings, community service orders, and treatment orders can be exempted from inclusion on criminal records.
- ▶ The content provided from the criminal record for public use (for the purpose of obtaining housing, employment, etc.) can be restricted and exclude minor (drug-related) offences.
- ▶ Infringement of administrative laws can be excluded in the criminal record that is provided for public use.

PI 36: Inter-agency coordination and cooperation

In order to ensure that interventions aimed at counteracting the unintended consequences of criminal records are implemented effectively, it is important that all involved stakeholders and agencies be committed. If this is not achieved, different institutional cultures and perspectives run the risk of cancelling out anticipated effects. In this respect, joint training on the awareness and the application of different alternative options, such as those listed above, can help to ensure institutional mainstreaming and the coherent pursuit of goals. Organizing joint training activities for law enforcement, judiciary, and social and health services is likely to be an effective means to build cooperation in the achievement of cross-sectorial policy coherence.

PI 37: Training prison staff and probation officers

Prison staff and probation officers who assist in acquiring training opportunities, employment, and housing, play a key role in the reintegration of offenders and specific efforts need to be undertaken in order to provide assistance. Employment and housing are crucial factors for a successful reintegration of offenders into society, as lack of adequate housing and employment are frequent causes of relapse into drug use and criminal recidivism. From this perspective, the training of prison staff and probation officers is of particular priority.

Social confinement and shattered ties with the community due to imprisonment

Drug users make up a significant part of the overall prison population, many of whom have used illicit drugs at some point, and many of whom have chronic drug use problems. Because of the illegality of the drug market and the high cost of drug use, often funded by criminal activity, more problematic forms of drug use are accompanied by an increased risk of imprisonment (189).

The process of arrests and imprisonment and the attitude towards users during imprisonment may increase the risk of violence and of other acts specific to prison subculture. Negative effects of imprisonment are aggravated by potential continued criminal involvement as a result of drug addiction and daily exposure to criminal networks in the prison setting. Being an inmate, especially one sentenced for a drug offence, increases the risk of severe social stigma and discrimination. This creates a situation that may result in significant difficulties for social reintegration and financial independence after completion of sentence and return to the community. Often times, negative effects of imprisonment also reflect on the families and close relatives of prisoners.

As a consequence of shattered ties with familial and social networks during the period of incarceration, prisoners are exposed to a range of physical, practical, and psycho-social challenges following their release from prison and during return to their communities. These challenges include potential social isolation and lack of finding employment and housing, among others. These challenges increase the risk of relapse and/or drug use, as well as engagement in criminal activity. Another consequence is a significantly increased mortality risk among those who revert back to street drug use (190).

Possible interventions (PI)

PI 23: Provide relevant treatment and rehabilitation services in prisons, detention and facilities for refugees and immigrants

PI 24: Facilitate adequate vaccination programs and prophylactic measures to drug users and their associates

PI 29: Alternative sentencing options

PI 34: Offering vocational training and employment opportunities for drug users

PI 35: Restrictions of content of criminal records provided for public purposes

PI 38: Provide for drug-free wards and therapeutic communities in prisons

Drug-free wards and therapeutic communities have proven to be an effective means of reducing exposure to the criminal prison subculture into which drug using inmates are frequently drawn (191). Prison can present an opportunity to enter treatment and the prison setting allows for the creation of therapeutic communities and drug-free wards. A number of pilot projects have shown the success of this approach, which on one hand refers drug-using inmates to therapy and treatment, and on the other hand provides thorough care for those who were in therapy prior to incarceration (191).

PI 39: Strengthen links between prison authorities and local authorities

Cooperation and communication links between health prison services and those outside the prisons need to be improved. Regular meetings on the regional or community level and joint training of medical staff from both prison healthcare and public health services can be a very effective means in this respect.

Chapter 4

Discussion

Although it is acknowledged that drug control policy is an important element of an integrated and balanced approach to counter illegal drug problems, control costs and unintended consequences are still frequently referred to as arguments for a policy change. In particular, enforcement against drug users is increasingly being debated as it is accused of violating essential principles of democratic societies, such as human rights. Drug prohibition itself is being questioned, and the recent legalization of cannabis supply and recreational use in some US states reflects this opposition. Further, how governments allocate their resources is always a topic of dispute, particularly in times of austerity. Thus, public expenditure on drug control policy interventions is under scrutiny, both by those wanting to change current drug policy and by those concerned that scarce resources are not optimally spent. This report has examined costs and unintended consequences of drug control policy.

Improving and employing public expenditure estimates for drug control policies

Improved knowledge of public expenditure on drug control policies is useful and wanted. Public expenditure estimates calculate the amount of resources spent, or required, to implement targeted interventions and can reveal to what extent policy intentions are reflected relevant budgets. Still, many governments do not provide a full summary of resources expended on drug policy in general and on control policy in particular. Wide-spread lack of thorough knowledge seriously hampers sound planning and evaluation needed to improve the design and implementation of cost-effective interventions to reach stated policy goals. Systematic evaluations are needed to find out what is effective, what the optimal means are for reducing drug-related problems and which interventions produce the best value for money. Estimates of drug-related public expenditure are an indispensable part of such a policy evaluation. Regardless of whether one wants to conduct a cost-benefit analysis or a cost-effectiveness analysis, reliable and valid estimates of public resources consumed by policies are required. Chapter 2 stresses the importance of obtaining such estimates and urges a standardization of definitions and methods to make estimates comparable across time, policy areas and countries. Policymakers need to fully acknowledge the importance of cost studies as a tool for scientifically-based decisions and give them higher priority.

To improve public expenditure estimates, there are some crucial issues that must be addressed. First, one has to arrive on a common understanding of the scope of exercise. Is it meant to reflect all public expenses on drug-related crime or just the public spending on drug law enforcement? For example, it has been discussed whether the costs of countering crimes committed under the influence of drugs should be included in the estimates of public expenditure of control policy. The chosen response to this and similar questions has substantial impact on the size of the estimate and on its interpretation. So far, there has been no commonly-agreed definition of what to include in public expenditure estimates in this field.

Second, relevant data needs to be improved and made known and available to analysts. A comprehensive inventory of national and international expenditure data sets would be a useful start, including a systematic compilation of international data sets with harmonized definitions and comparable data. The appendices of this report and the accompanying web site (<http://www.emcdda.europa.eu/topics/drug-related-public-expenditure>), can be seen as a first systematic contribution towards this end.

Third, although some useful data sources exist, much of the required cost information is not readily available. For example, money spent on drug control is often not labelled as such in public budgets and accounts. When expenditure data are embedded in broader or more general budgets, for example, funds encompassing more comprehensive health or security goals, a common agreement on assumptions and types of models applied is required in order to extract the fraction of funds attributable to drugs. Chapter 2 presented two alternative methodological approaches for estimating public expenditure in these cases: the top-down and the bottom-up approach. To illustrate how these methods have been applied, Chapter 2 further offered examples of empirical studies of individual drug control sectors (public expenditures for police, court systems, and customs and prisons) and of national estimates of total expenditure on drug control policy. The examples clearly indicated that even within each of the two methodological approaches, large differences exist in how the same types of expenditure are estimated and what types of expenditure are included in studies. Therefore, the development of guidelines to improve data collection systems and to develop economic models to estimate costs is highly desirable.

The aforementioned empirical analyses showed some interesting and useful conclusions. Public expenditure on drug-related control policies represents 40% to 70% of the total funds spent on drug policy in Europe, depending on the country. Taking into account that resources for all elements of drug policy (prevention, law enforcement, treatment and harm reduction initiatives) amounted to an interval of 0.01% to 0.5% of gross domestic product (GDP) of these countries, one may conclude that the volume of resources consumed for control policy is significant. However, to further increase knowledge and obtain more precise estimates, more and better data and modelling techniques are required.

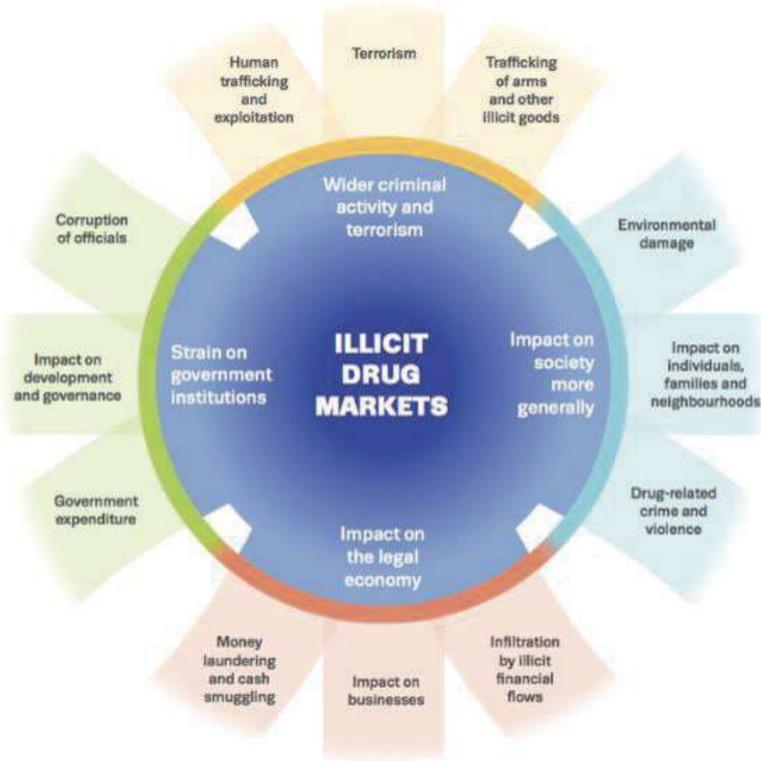
Acknowledged and taking into account unintended consequences

The unintended consequences discussed in Chapter 3 are of policy value for two reasons. First, they should be taken into account when policy decisions are made. Second, these unintended but predictable negative effects should be ameliorated where possible (20). In order to accomplish the latter, it is important to identify the both sources of those consequences, as well as who is affected. In addition to discussing a range of health and non-health effects of unintended consequences, this report has identified their bearers and lists almost 40 possible interventions that may reduce negative effects.

The unintended consequences of drug prohibition have led to substantial human suffering and have absorbed large amounts of human and economic resources that might have been allocated to other policy goals. The unmet need of pain relief and palliative care due to the strict enforcement of the UN conventions is perhaps one of the most serious consequences for non-users of illegal drugs. The World Health Organization illustrates the wide-ranging scope of the problem by estimating that 5.5 billion people have seriously reduced, or total lack of, access to essential medicines, and suggests that this may in part be due to governments’ strict implementation of the UN conventions (44). Additionally, the fact that many opioid dependent users are denied access to the most effective treatment – opioid substitution treatment (OST) – is of critical importance for the affected drug users and their relatives.

Further, illegal markets have consequences for individuals and society, including participants’ involvement in other types of criminal activities and in terrorism, its impacts on legitimate businesses and the wider economy, its strain on and corruption of government institutions, and its impacts on wider society (11). Figure 4.1 illustrates these consequences:

Figure 4.1 – The widespread ramification of illicit drug markets



Source: EMCDDA/Europol (11).

As discussed in Chapter 3, the prohibition of drug manufacturing and sale have induced large profit margins at each level of the distribution chain. It is estimated that the illegal EU retail drug market was worth at least EUR 24 billion (range EUR 21 to 31 billion) in 2013, with the cannabis market being the largest (35%), followed by the heroin (28%) and cocaine (24%) markets (11). These risky but large revenues have attracted criminals and organized crime groups to the drug economy.

In addition to law enforcement activity geared towards disrupting illicit drug supply, most European countries also enforce some sort of sanctions against users, with the intended effects of deterring drug use and preventing normalisation and spread of use. The drug conventions oblige states to ensure that possession of drugs, even in small quantities, shall be a punishable offence. They offer, however, alternatives to conviction or punishment, including treatment, education, aftercare, rehabilitation and social reintegration (4). Great variation exists in how strictly countries apply drug laws and to which substances. Although some countries are known for extreme enforcement, many countries have decriminalized drug use and possession, and very few imprison offenders for drug use alone.

Still, drug control policy and human rights are very often linked. The obligations of States under the Council of Europe and United Nations Conventions are to protect fundamental rights and freedoms, in particular the right to life and human dignity, the right to protection of health, the right to equitable access to quality health care services for all, the prohibition of any type of discrimination (8), as well as the right of children to be protected from narcotic drugs and psychoactive substances. Still, as discussed in Chapter 3, state enforcement of criminal drug laws has in some cases resulted, directly or indirectly, in serious and sometimes widespread and systematic human rights violations. When poorly developed and implemented, drug policies have led to police harassment and violence, arbitrary detention, disproportionate sentencing and incarceration, discrimination, violations of the right to health, and other ill-treatment. These unintended consequences of control policy are likely to vary greatly, depending on the drug and the operational context. Unintended consequences to drug uses are also likely to vary according to age, gender, race and socioeconomic factors, disproportionately affecting already disadvantaged groups. Examples of human rights violations have fuelled the call for liberalisation and humanisation of drug control policies.

Drug control is not simply a choice between total prohibition and full legalisation. It is a choice among options on a continuum between these two extremes. The principle of proportionate response to drug crimes has increasingly gained support and is evident in important policy documents, such as the UN's "Report of the International Narcotics Control Board for 2016" (4). As recently illustrated in "Penalties for drug law offences in Europe at a glance" (5), the UN conventions are enforced very differently across Europe. In all European countries, however, alternatives to coercive sanctions have been repeatedly suggested and encouraged by many stakeholders. The most recent is perhaps the EU's action plan on drugs 2017-2020, which explicitly calls for the use of alternative sanctions for drug-using offenders (192). Two topical reports, "Alternatives to punishment for drug-using offenders" (193) and "Study on alternatives to coercive sanctions as response to drug law offences and drug-related crimes" (194), examine possible changes within the intent of the UN conventions. Proportionate responses and increased use of alternative sanctions are likely to ensure legitimacy and continued support for the control policy.

Conclusion

The cost and unintended consequences of drug control policy will remain topics of controversy and debate. This report has highlighted the need for better estimates of public expenditure, as this can improve planning and evaluation of drug policy. This report has also listed a range of unintended consequences, their mechanisms and bearers, and offered an extensive list of possible interventions to ameliorate their negative effects. It is important to note, however, that there is no public consensus on which unintended consequences matter the most; different weights may be assigned to the same consequence. Nor is there consensus on what measures governments should be permitted to take in managing those harms. Still, the increased acknowledgement and focus on the many and extensive unintended consequences of drug control policy has fuelled public response. To retain political support and legitimacy, locally adjusted interventions to ameliorate the negative and unintended effects should be implemented.

We hope this report will contribute to improved public expenditure estimations and understanding of their importance. Further, we hope that unintended consequences will be taken more fully into account when drug control policy is planned and implemented and that possible interventions are employed more often to reduce their negative effects.

Appendix 1 – Available databases and potential indicators for drug-related public expenditures

Examples of international databases, which can be used for estimating drug-related public expenditures

Level of estimation	Examples of databases	Estimation data
International	EMCDDA Statistical bulletin and Public expenditure database	<ul style="list-style-type: none"> – The EMCDDA statistical bulletin covers a broad range of areas including the most recent estimates of drug-related crime in the form of drug seizures, types of offence, price, purity and use in prison, and country responses to the drug situation in Europe. http://www.emcdda.europa.eu/data/stats2015 – The EMCDDA also publishes the most recent national data on drug-related public expenditures available in Europe. – http://www.emcdda.europa.eu/topics/drug-related-public-expenditure
	WHO Database	<ul style="list-style-type: none"> – Global Information System on Resources for the Prevention and Treatment of Substance Use Disorders (includes information about: prevalence and burden of Disease, monitoring and surveillance; policy; treatment system and services; pharmacological treatment; prevention programmes for substance use and related harm; and human resources and civil society involvement).
	Eurostat	<p>Public expenditure according to the Classification of the Functions of Government (COFOG)</p> <p>COFOG published data according to two levels of classification (United Nations, 2008). The first classifies expenditure into 10 general functions, one of which is “Public order and safety”. The second classifies expenditure into 69 groups, in which there are three indicators of interest: police service, law courts and prisons. The definitions below are provided by the UNODC.</p> <p>From the Public order and safety section:</p> <p>Police services</p> <ul style="list-style-type: none"> – Administration of police affairs and services, including alien registration, issuing work and travel documents to immigrants, maintenance of arrest records and statistics related to police work, road traffic regulation and control, prevention of smuggling and control of offshore and ocean fishing. – Operation of regular and auxiliary police forces, of port, border and coast guards, and of other special police forces maintained by public authorities; operation of police laboratories; operation or support of police training programmes.

Level of estimation	Examples of databases	Estimation data
		<p>Law Courts</p> <ul style="list-style-type: none"> – Administration, operation or support of civil and criminal law courts and the judicial system, including enforcement of fines and legal settlements imposed by the courts and operation of parole and probation systems. – Legal representation and advice on behalf of the government or on behalf of others provided by government, in cash or in services. <p>Prisons</p> <ul style="list-style-type: none"> – Administration, operation or support of prisons and other places for the detention or rehabilitation of criminals such as prison farms, workhouses, reformatories, asylums for the criminally insane, etc.
	<p>UN-CTS (Crime and Criminal Justice Statistics)</p>	<p>Data produced by UNODC have multiple sources. Member States regularly submit to UNODC statistics on drugs (through the Annual Report Questionnaire) and crime and criminal justice (through the annual Surveys on Crime Trends and Operations of Criminal Justice Systems). Other data are collected through national surveys implemented by UNODC in co-operation with national governments or are compiled from scientific literature. UNODC attempts to maximise the comparability of the data and estimate regional and global statistics.</p>
	<p>SPACE</p>	<p>SPACE unites two related projects: SPACE I provides data on penal institutions and the population held in custody, as well as on certain conditions of detention, while SPACE II collects information on persons serving non-custodial sanctions and alternative measures.</p> <p>Data are collected every two years by means of two questionnaires sent to the equivalents of the ministries of justice, the penitentiary administrations and the probation authorities of each country in Europe. The collection and validation of these data then takes place at the University of Lausanne, where analyses and interpretations for both projects are formulated through a common methodology. This methodology aims to allow comparisons among states at European level, by proposing SPACE categories instead of each country's own national categories, while still including questions regarding the particularities of their specific sanctions and measures. The SPACE project produces two annual reports: SPACE I – Prison Populations and SPACE II – Persons Serving Non-Custodial Sanctions and Measures, presenting the data collected and the key points of the results.</p>

Level of estimation	Examples of databases	Estimation data
	European Sourcebook on Crime and Criminal Justice Statistics	The Sourcebook contains data from 41 European countries regarding their criminal justice systems. The book is structured into six main chapters covering different stages of the judicial system: Police Statistics, Prosecution Statistics, Conviction Statistics, Prison Statistics, Probation Statistics and, for the 2014 edition, a final chapter on National Victimization Surveys. The data provided are systematically accompanied by texts and notes relating to the specificity of each country and which discuss the different challenges attributed to the comparison of the data.
	Social Expenditure Database	The OECD Social Expenditure Database (SOCX) provides a unique tool for monitoring trends in aggregate social expenditure and analysing changes in its composition. The main social policy areas are as follows: old age, survivors, incapacity-related benefits, health, family, active labour market programmes, unemployment, housing, and other social policy areas.
	ESPAD	Drug abuse prevalence among teenagers in European countries.
National	Database of national statistics	Expenditures of different groups, in which can be found some indicators of interest: police service, law courts, prisons, medical and social services.
	Annual report from Social Services Department	Data on Social Services Department expenditures at regional level and the number of drug users receiving social benefits in connection with drug use.

Appendix 2 – The international Classification of the Functions of Government (COFOG)

The COFOG classification has three structural levels. At the first level, government expenditure is broken down into 10 functions. These are then divided into 69 groups (second level of COFOG), which are themselves divided into classes at the third level – the most detailed classification level. COFOG permits an examination over time of trends in government outlays on particular functions (12).

The detailed three-level structure of COFOG includes financial flows of public finance, which are going from state and local (regional and municipal) budgets to non-profit organisations (NPOs) with drug-policy programmes. COFOG is a functional classification system used by the System of National Accounts 1993. COFOG is a useful international classification system for spatial comparison (between countries) and also for time comparison (over time). In principle, its units of classification are individual transactions. This means that each outlay (purchase or transfer) should be assigned a COFOG code according to the function that the transaction serves. This principle is valid for both capital transfers (investment) and current (non-investment) transfers. Eurostat has published

annual data according to the COFOG definitions for the European Union countries since the early 2000s.

The extensive structure of COFOG contrasts with the four-category division introduced by Reuter (20), based on the likely effects of services provided by drug policy programmes (namely prevention, treatment, enforcement and harm reduction). Reuter's programme division is the classification of the recipients (NPOs) with drug-policy programmes.

An example of an overview of public expenditure groups, broken down according to the main public functions pursuant to the international classification of the functions of the government at the third level, is shown in the table below.

A pragmatic approach towards drug-related research and public expenditure estimates would suggest adopting a classification such as COFOG, as proposed by Eurostat. The COFOG classification system guarantees annually available data for most European countries, according to harmonised definitions and standard data collection procedures.

Public expenditures according to the classification of public functions

Public functions	Public functions at the third level of classification
01 General public services	014 Basic research
03 Public order and safety	031 Police services
	033 Law courts
	034 Prisons
07 Health	071 Medical products, appliances and equipment
	072 Outpatient services
	073 Hospital services
	074 Public health services
	075 R&D health
09 Education	091 Pre-primary and primary education
	092 Secondary education
	094 Tertiary education
	095 Education non-definable by level
	096 Subsidiary services to education
10 Social protection	105 Unemployment
	106 Housing
	107 Social exclusion

Appendix 3 – Summary tables: data from international databases

Table 1 – Public expenditure

Data and Statistics	Dataset	Type of information	DATABASE	YEARS	Number of observations(*)
Public expenditure	Expenditure of the general government	Law Courts	Eurostat, European Union (EU)	1995-2015	Europe (31) = 473/651
		Police Services			Europe (31) = 473/651
		Prisons			Europe (31) = 473/651
Drug-related public expenditure	Public expenditure on supply reduction	Total drug-related public expenditure	Country Drug Profiles, EMCDDA, (EU)	Last year available	EU (30) =20/30
		Percentage spent on supply reduction			
		Percentage spent on demand reduction			

(*) The number of observations reports the number of data records, taking into account the territory; countries and years available. The ratio compares the number of effectively reported observations with the total number of records, if no data were missing. Example: Europe (44) = 28/368: in Table 4, the conviction statistics of the European Sourcebook of crime and criminal justice statistics reports 28 data records, for the community sanctions imposed to drug offences in 2010, compared to the 368 data records that would exist if no data were missing, in the region Europe (which accounts with 44 countries).

Table 2 – Drug law offences

Data and Statistics	Dataset	Type of information		DATABASE	Years	Number of observations(*)			
Drug law offences	Drug Law Offences	Number of offences	Offences		EMCCDA (EU)	1995-2014	EU (30) = 364/600		
			Offender				EU (30) = 262/600		
		Offences by Types	Use			2004-2013	EU (30) = 230/300		
			Supply				EU (30) = 238/300		
		Offences by drug	Cannabis	Total		2004-2013		EU (30) = 203/300	
						Use	2005-2013		EU (30) = 163/270
							Supply	EU (30) = 160/270	
				Heroin		Total	2004-2013		EU (30) = 186/300
						Use	2005-2013		EU (30) = 159/270
						Supply	EU (30) = 160/270		
				Cocaine		Total	2004-2013		EU (30) = 185/300
						Use	2005-2013		EU (30) = 159/270
						Supply	EU (30) = 176/270		
		Crack	Total	2005-2013		EU (30) = 50/270			
			Use	EU (30) = 47/270					
			Supply	EU (30) = 37/270					
		Amphetamine	Total	2005-2013		EU (30) = 163/270			
			Use	EU (30) = 74/270					
			Supply	EU (30) = 87/270					
		Methamphetamine	Total	2005-2013		EU (30) = 98/270			
			Use	EU (30) = 74/270					
			Supply	EU (30) = 87/270					
		Ecstasy	Total	2005-2013		EU (30) = 162/270			
			Use	EU (30) = 144/270					
			Supply	EU (30) = 153/270					
		LSD	Total	2005-2013		EU (30) = 127/270			
			Use	EU (30) = 108/270					
			Supply	EU (30) = 95/270					

Table 3 – Prison population

Data and Statistics	Dataset	Type of information	DATABASE	YEARS	Number of observations ^(*)	
Prison population	Persons held in institutions for drug users offenders outside penal institutions	Availability of institutions for drug users offenders, outside penal institutions	Space I, Council of Europe (CoE)	2014	CoE (47) = 28/53	
	Situation of prison population	Population on 1st January		Total number of prisoners (including pre-trial detainees) Total number of detainees held in remand institutions/ sections (pre-trials) Total number of prisoners held in institutions serving a sentence Total capacity of penal institutions Surface area per prisoner (m ²)	2009 & 2014	2009: CoE (47) = 343/424 2014: COE (47) = 255/265
		Total number of prisoners (including pre-trial detainees)				
		Total number of detainees held in remand institutions/ sections (pre-trials)				
		Total number of prisoners held in institutions serving a sentence				
		Total capacity of penal institutions				
		Surface area per prisoner (m ²)				
	Evolution of prison population	Total number of prisoners		Prison population	2000-2014	CoE (47) = 707/795
		Prison population				CoE (47) = 683/795
	Legal status of prison population	Untried detainees (no court decision)"		Detainees found guilty but no sentence yet Sentenced prisoners (appealed or can do so) Detainees with no final sentence, but serving a prison sentence in advance Sentenced prisoners (final sentence), of which: – fine defaulters – in revocation, suspension or annulment of the conditional release or probation Other cases Total number of prisoners (including pre-trial detainees)	2009 & 2014	2009: CoE (47) = 274/424 2014: CoE (47) = 315/477
		Detainees found guilty but no sentence yet				
		Sentenced prisoners (appealed or can do so)				
		Detainees with no final sentence, but serving a prison sentence in advance				
		Sentenced prisoners (final sentence), of which:				
		– fine defaulters				
		– in revocation, suspension or annulment of the conditional release or probation				
		Other cases				
Total number of prisoners (including pre-trial detainees)						

Data and Statistics	Dataset	Type of information	DATABASE	YEARS	Number of observations ^(*)
	Main offence of sentenced prisoners (Final Sentence)	Drug offences		2009 & 2014	CoE (47) = 88/106
	Lengths of sentences imposed (final sentenced prisoners)	Length of the sentences by month, years or lifetime		2009	CoE (47) = 405/583
				2014	CoE (47) = 557/689
	Prison population (including pre-trial detainees): stock	Prison population Stock – Total	European Sourcebook of crime and criminal justice statistics, Université de Lausanne	2003-2011	Europe (44) = 387/414
		Prison population Pre-trial detainees			Europe (44) = 356/414
	Convicted prison population by type of offence	Total criminal offences		2006 & 2010	Europe (44) = 88/92
		Drug offences (of which %)		2010	Europe (44) = 38/46
		Convicted prison population in 2010 Drug offences: Total		2006 & 2010	Europe (44) = 46/92
	Sentenced persons held in prisons	Drug Offences		UNODC	2010-2012
		Drug Trafficking	Europe (26) = 36/81		

Table 4 – Cases registered by the police, prosecutors and law courts

Data and Statistics	Dataset	Type of information		DATABASE	YEARS	Number of observations(*)	
Police statistics	Crime Recorded by the Police	Total		Eurostat	1993-2007	Europe (36) = 536/585	
		Unlawful acts involving controlled drugs or precursors			1993-2007	Europe (36) = 486/585	
					2008-2014	Europe (39) = 275/287	
	Drug-Related Crimes at the national level, number of police-recorded offences	Total		UNODC	2003-2008	Europe (40) = 215/258	
		Drug Possession				Europe (21) = 101/138	
		Drug Trafficking				Europe (37) = 175/240	
	Police Statistics-Offences/Offenders	Offences	Criminal Offences		European Sourcebook of crime and criminal justice statistics	2003-2011	Europe (42) = 347/387
			Drug Offences				Europe (42) = 333/387
			Drug Trafficking				Europe (41) = 269/387
		Offenders	Criminal Offenders				Europe (42) = 263/396
Drug Offenders			Europe (42) = 245/396				
Drug Trafficking			Europe (42) = 190/396				
Conviction statistics	Criminal cases handled by the prosecuting authorities	Output cases: Total		European Sourcebook of crime and criminal justice statistics	2003-2011	Europe (42) = 218/396	
		Percentage brought before a court of the total output of criminal cases handled by the prosecuting authorities				Europe (42) = 198/396	
		Output cases by offence group	Drug Offences		2010	Europe (42) = 33/88	
			Drug Trafficking			Europe (42) = 25/88	
	Convictions Statistics- Persons convicted	Criminal offences		European Sourcebook of crime and criminal justice statistics	2003-2011	Europe (42) = 293/369	
		Drug offences				Europe (42) = 272/369	
		Drug trafficking				Europe (42) = 193/369	
	Total persons receiving sanctions/ measures	Criminal offences		European Sourcebook of crime and criminal justice statistics	2006	Europe (41) = 203/473	
		Drug offences			2010	Europe (41) = 176/602	
		Drug trafficking			2006	Europe (41) = 175/473	
					2010	Europe (41) = 158/602	
					2006	Europe (41) = 113/473	
					2010	Europe (41) = 104/602	
	Community sanctions and measures imposed	Criminal offences		European Sourcebook of crime and criminal justice statistics	2010	Europe (44) = 52/368	
Drug offences		Europe (44) = 28/368					

Acronyms

Council of Europe (47) = CoE(47): Albania, Andorra, Armenia, Austria, Azerbaijan, Belgium, Bosnia-Herzegovina, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Georgia, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Republic of Moldova, Monaco, Montenegro, Netherlands, Norway, Poland, Portugal, Romania, Russian Federation, San Marino, Serbia, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, "The former Yugoslav Republic of Macedonia", Turkey, Ukraine, United Kingdom

European Union (30) = EU(30): Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Turkey, United Kingdom

Europe (21): Belarus, Bulgaria, Czech Republic, Hungary, Poland, Romania, Finland, Iceland, Lithuania, Norway, Sweden, United Kingdom, Albania, Croatia, Malta, Slovenia, Belgium, France, Liechtenstein, Luxembourg, Switzerland

Europe (26): Bulgaria, Czech Republic, Poland, Romania, Russian, Denmark, Estonia, Finland, Ireland, Latvia, Lithuania, Norway, Sweden, United Kingdom, Andorra, Greece, Italy, Malta, Portugal, Serbia, Slovenia, Austria, Liechtenstein, Monaco, Netherlands, Switzerland

Europe (31): Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Turkey, United Kingdom

Europe (36): Europe (31) + Liechtenstein, Montenegro, TRF-Macedonia, Serbia, Turkey

Europe (37): Europe (21) + Republic of Moldova, Russian Federation, Slovakia, Ukraine, Denmark, Estonia, Ireland, Bosnia-Herzegovina, Italy, Montenegro, Portugal, Serbia, Spain, TRF- Macedonia, Germany, Monaco

Europa (39): Europe (36) + Albania, Bosnia-Herzegovina, Kosovo

Europa (40): Belarus, Bulgaria, Czech Republic, Hungary, Poland, Moldova, Romania, Slovakia, Ukraine, Denmark, Estonia, Finland, Iceland, Ireland, Latvia, Lithuania, Norway, Sweden, United Kingdom, Albania, Bosnia-Herzegovina, Croatia, Greece, Italy, Malta, Montenegro, Portugal, Serbia, Slovenia, Spain, TRF- Macedonia, Austria, Belgium, France, Germany, Liechtenstein, Luxembourg, Monaco, Netherlands, Switzerland

Europa (41): Europa (42), except Luxembourg

Europe (42): Europa (31) + Albania, Armenia, Bosnia-Herzegovina, Georgia, Kosovo, Moldova, Russia, Serbia, TRF- Macedonia, Turkey, Ukraine

Europe (44): Europe (42) + Azerbaijan, Montenegro

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Evaluating drug policy is an integral part of a cost-efficient approach to tackle illicit drugs. This report takes a first step towards a systematic analysis, by examining a set of representative attempts to estimate public expenditure on supply reduction interventions. It proposes a common set of definitions, aiming to establish a common basis for understanding this topic and facilitating comparability in three main dimensions: time, policy and countries. Although it is mainly confined to supply reduction expenditures, in order to set the context, it describes the proportion that total drug-related expenditure represents of national public spending and; presents the balance between demand and supply reduction spending for a number of European countries. Finally, with the aim of facilitating and promoting future empirical expenditure studies and of setting the ground for the development of good practices, relevant data sources and methodologies applied are listed and discussed and examples of sectorial models of public spending are selectively provided.

The Pompidou Group is the Council of Europe's co-operation group to combat drug abuse and illicit trafficking in drugs. As an enlarged partial agreement of the Council it is open to the member states as well as to non-member states from Europe and other parts of the world. As of 1 October 2017, the Group gathers 39 countries from Europe and beyond. Only a balanced, multifaceted approach brings together the potential benefits of different strands in drug policy. Drug policy has to be innovative and evidence based. It has to involve prevention, harm reduction, treatment and enforcement. On these principles the Pompidou Group provides knowledge, support and solutions for effective and humane drug policies.

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