

Comparative Analysis of Research into Illicit Drugs in the European Union

Full Report



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Full Report

Comparative Analysis of Research into Illicit Drugs in the European Union

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This study was commissioned by the Directorate-General for Justice, Freedom and Security of the European Commission.

With up to two million problem drug-users in the EU, it's high time to raise awareness of vulnerable groups, especially youth, on the risks of drug taking.

(EU Vice-President Jacques Barrot)

Information, research and evaluation are key elements of EU drug policy.

(EU Drug Strategy, 2005-2012)

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1 INTRODUCTION: SCOPE AND BACKGROUND OF THE STUDY

1.1 Scope and objectives

The study was commissioned by the European Commission's Directorate-General for Justice, Freedom and Security (Justice-Liberté-Sécurité; DG JLS) with the following **six objectives**:

- (1) To map the key research areas, research disciplines and recent research trends, covering both drug demand and drug supply reduction, taking into account any important interrelations with related thematic areas (i.e. mental health and addiction, licit substance abuse, etc.).
- (2) To map and analyse the capacity, infrastructure and model of coordination of drug-related research in the member states (MS). An analysis of the participation of the national research communities in EU programmes should also be conducted.
- (3) To map and analyse the capacity, infrastructure and coordination of illicit drug-related research at European and international level, taking into account the drug-related research activities of the Pompidou Group of the Council of Europe and the World Health Organisation as well as the activities of significant private or semi-private research bodies.
- (4) To briefly describe – for comparative purposes - the drug-related research trends, capacity, infrastructure and model of coordination in the US, Canada and Australia as well as major research collaborations in the drug field with EU partners.
- (5) To identify strengths and weaknesses in EU drug-related research as well as gaps in the knowledge infrastructure in this field, always bearing in mind that the focus of this study covers both supply and demand of illicit drugs.
- (6) To assess options for strengthening – if necessary – the drug-related research infrastructure in EU.

Terminological note

The phrase “drug-related research” herein is defined as purposeful scientific activity which follows the scientific method and specifically addresses *illicit* drugs, (which include controlled medicines when consumed without medical authorization, i.e. non-prescribed). We use the terms *drug problems* or *drug-related problems* to denote all related negative individual and social consequences. The terms *drug-use disorders* or *drug-related disorders* are intended to capture a narrower spectrum of harmful use and dependence under ICD-10/DSM-IV. The term ‘research’ is defined in detail in the methodology section.

1.2 Background

1.2.1 The size of the drug problem in Europe

There is a universal consensus about the need to tackle drug problems in Europe. The most recent estimates suggest that at least 23m people (aged 15-64) have used cannabis in the past year (with a country variation of 0.8-11.2%), followed by 4m cocaine users (0.1-3.0%), 2.6m MDMA users (‘ecstasy’; 0.2-3.5%), and 2m amphetamine users (0-1.3%). General population surveys of opioid and crack cocaine, the two drugs associated with the greatest drug-related harms and dependence and the majority of the social costs associated with drug misuse, are less reliable given the marginalised nature of the user population, but it is estimated that there are between 1 and 6 users per 1,000 people in the adult population across the European Union (EMCDDA, 2008a). At least 500,000 people receive opioid substitution treatment for heroin. Altogether there are about 2m current problem drug-users in the EU and there are around 7,500 fatal overdoses each year. When considering the very broad range of drug-related negative consequences and the high rate of comorbidity with common and serious mental disorders (EMCDDA, 2004), the prevalence of drug problems in Europe is alarming.

1.2.2 The role of research in national and EU drug strategies

The EU Drugs Strategy 2005–2012 recognises the importance of *information, research and evaluation* (alongside coordination and international cooperation) as cross-cutting elements of an overall EU drug policy that advocates a balanced approach to tackling demand for drugs and the supply of drugs (Council of the European Union, 2004). The overarching strategy focuses on the prevention and reduction of drug-related harms as well as the reduction of drug-related crime, including measures to prevent drug production, cross-border trafficking and the diversion of precursors. The strategy also calls for *"a better understanding of the drugs problem and the development of an optimal response to it through a measurable and sustainable improvement in the knowledge base and knowledge infrastructure"*.

In order to improve this drug-related knowledge base and infrastructure, the first four-year EU Action Plan on Drugs 2005-2008 set out different objectives: providing reliable information on the drug situation (objective 40); monitoring of drug trends and markets (obj. 39,41,42); promoting drug-related research (obj. 43,44) and continuous evaluation (obj. 45) (Council of the European Union, 2005). The second EU Drugs Action Plan 2009-2012, based on lessons learned in the previous years, identified as one of the five key priorities *improving understanding of the problem* "through more and better coordinated research ..." (Council of the European Union, 2008). Objectives 21-24 refer to "improving the understanding of all aspects of the phenomenon of drug-use in order to expand the knowledge based for public policy ... and to carry out research". Action 63 is especially relevant for the present study: 63. *The Council and Commission will:*

- *identify future EU research priorities in the field of illicit drugs and the mechanisms needed in order to generate new knowledge,*
- *develop new approaches and technologies,*
- *strengthen research capability by developing and focusing its strategic direction and taking steps to improve cooperation in the EU.*

In addition, the European Commission's Drug Prevention and Information Programme (2007–2013) aims to "set up multidisciplinary networks" and to "ensure the expansion of the knowledge base, the exchange of information and the identification and dissemination of good practices" (Council of the European Union, 2007).

In 2000, the Lisbon Strategy (Council of the European Union, 2000), stressed the role of research in general to make the EU "the most dynamic and competitive knowledge-based economy ... by 2010". To "modernise social protection systems ...", and that "increasing healthy life years ..." will be a crucial factor in attaining these objectives.

In all relevant strategic documents, research is seen as an essential component of the broader drug-related knowledge infrastructure. It is recognised that a research and academic infrastructure is key to ensuring that the drug policy actions are fully informed and evidence-based. Nevertheless, the research knowledge base on many topic areas is fragmented and diffuse. In this context it is important to recognise that the focus, organization and delivery of research is the national responsibility of MS, with the EC playing a complimentary role. The national focus of drug-related research has some implications for a common European research strategy and evidence-based European drug policy (EC, 2007):

- There is considerable national variation in the size and type of illicit drug-use between MS and in the priorities and volume of research undertaken.

- Research into illicit drugs is embedded in different national research concepts and historic developments. It is either structured, funded and carried out as a separate research area, or it is part of a broader substance-related research (including legal psychotropic substances). In some instances it falls into an even more general component of health, social or criminological/legal research in the basic research disciplines. A strong embedding of drug research in some MS within such disciplines as biology, chemistry, psychology, sociology, economics and criminology can serve to complicate research cooperation in MS, and the development of a more integrated “substance research discipline” across the Union.
- Much of the applied research activity in Europe (particularly treatment-related and criminological research) must be seen in its national cultural context. The diversity of laws and languages serves to make the aggregation of research and an assessment of its overall value and importance are very challenging task.
- Because of the national focus of drug research there is limited cooperation form national drug research communities within Europe. And in contrast to other fields, there is currently no comprehensive European society for addiction research.
- The national orientation of most professional drug researchers may also account for the limited utilisation of EU funding opportunities. For example, just 18 projects were funded in the DG RTD 5th and 6th Framework programme between 2000 and 2006 (EC 2007, p.2).

Against this background, several recent European meetings have discussed the state of drug research in Europe with a view to strengthen the total research capacity and infrastructure (for details see EC 2007). During a May 2007 Meeting of the Horizontal Drug Group it was decided to invite the EC to (a) *take stock of the existing drug-related research infrastructure within the MS and at European level*, (b) *assess the functioning and relevance of existing networks* and (c) *detect the need and possibilities for improvement of the drug-related research capacity at EU level*.

This stocktaking exercise builds on the following work:

- A descriptive report on community research programmes into illicit drugs prepared by Kenis in 1996.
- The activities of the Pompidou Group (PG) of the Council of Europe. The group has been engaged in several activities to study, promote and strengthen drug-related research. A research working group has been established and a register of drug-related research projects in Europe has been created (<http://www.pgregister.coe.int/Pompidou/WebForms/Accueil.aspx>).
- A focused assessment by the EMCDDA on “national drug-related research in Europe” which analysed selected research projects from MS as well as the capacity, infrastructure and existing problems (EMCDDA, 2008b).
- An EC ‘non-paper’ on the “EU knowledge infrastructure in the field of drugs” which provided an overview on research funding and research infrastructure at the level of the Union (EC 2007).

Taken together, there is a clear message in these documents that a comprehensive assessment of drug-related research and a review of research infrastructure in MS and at the European level is needed in order to analyze strengths and weaknesses and to derive possible actions for improvement of the current drug-related research situation.

1.2.3 An organizing model of illicit drug problems, related public actions and corresponding research fields

The present study used a conceptual framework (heuristic model) in order to structure and categorize research work in Europe. The core feature of this model is to describe the natural history of illicit drug-use which progresses (in most, but not all cases) from experimental, to regular, to hazardous, harmful and dependent use (Le Moal & Koob, 2007). Figure 1.1 displays a vulnerability-risk model that includes a broad range of early (innate or acquired) vulnerability factors as well as more acute, proximal risk factors that occur shortly before and during the critical age-range for the development of a specific substance use disorder. However, the core processes which mediate vulnerabilities and risk factors are not well understood. Many questions remain unanswered concerning the ways in which biological and early environmental factors (family), general social factors (availability, social support, marginalisation and other possible stressors), cultural factors (transmission of consumption patterns, symbolic meaning of drug-use) and economic factors influence and shape the development of substance use disorders (see Figure 1.1)

There is also limited information about the factors that lead to improvement, recovery, or relapse, and whether such changes occur naturally or are due to either cultural factors, social pressure, social support, semi-professional (e.g. self-help groups) or professional interventions. People recover from drug use disorders after receiving formal treatment interventions and some recover naturally through informal supports. There is a wide range of cultural, social context-related, patient and specific treatment factors which influence changes in substance use problems (Figure 1.2).

Figure 1.1 Onset and course of substance use and substance use disorders and transition-related factors (Bühringer et al., 2008; Wittchen et al., 1999; modified)

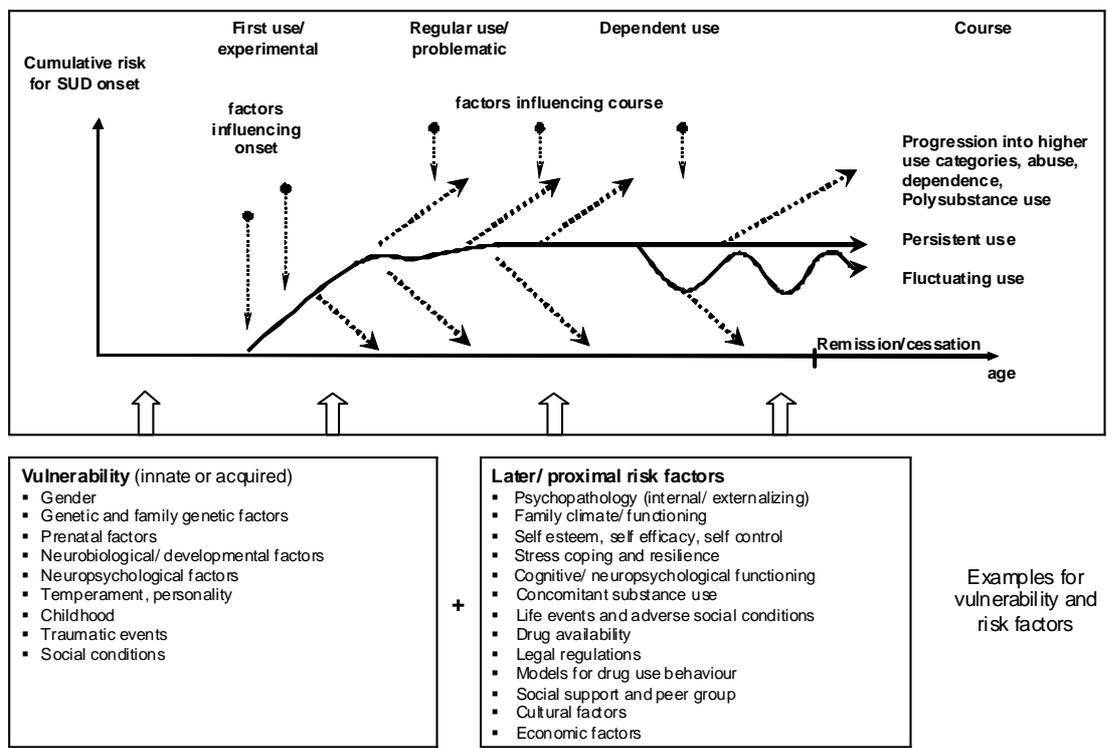
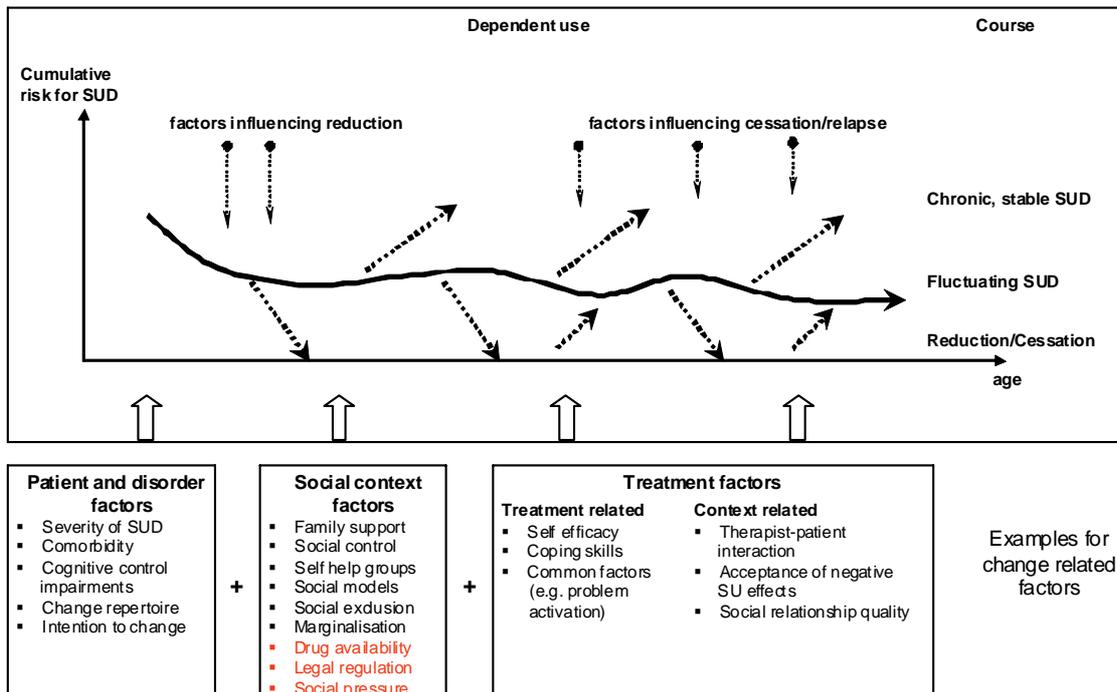


Figure 1.2 Factors related to reduction of use, remission, and relapse in substance use

disorders (Bühringer et al., 2008; modified)

This heuristic model also includes biological, psychological, social, economic and cultural concepts and seeks to understand these processes and leads to the following key questions (e.g. Adrian, 2003; Matto, 2004; Volkow, 2005):

- Why does the prevalence and incidence of drug use vary widely across the MS of the Union? Are cultural, economic or social factors relevant? Knowledge in this field would enable MS to learn from each other about the possible impact of legal and social regulations and cultural conditions.
- Given the same access to illegal drugs and similar environmental conditions, why do some people start to use illicit drugs and others not? The answers here are relevant for structural measures (e. g. change of social conditions or legal regulations) as well as for primary prevention programmes.
- Why do some people continue to use drugs regularly and others not? Social regulations as well as early interventions will profit from knowledge in this field.
- Why do some drug-users stop without formal interventions, while others need a wide range of interventions with different intensities, and some may never attain abstinence? Knowledge here is needed to better understand and shape cultural, social and economic influence factors and develop effective treatments.

To gain the necessary knowledge base for the selection and shaping of effective actions, we identified four research areas and specific research fields: demand and supply reduction, research on drug policy, assessments of drug-use behaviours, and the analysis of drug policy.

Understanding drug-use behaviour

- (1) Drug mechanisms, effects and methods of detection
 - (2) Aetiology and course of drug-use
 - (3) Epidemiology
- } Basic research

Demand reduction

- (4) Intervention (prevention and treatment including harm reduction)

Supply reduction¹

- (5) Drug supply (e. g., production, markets, trafficking)
- (6) Interdiction (e. g., legislation, law enforcement)

Policy analysis

- (7) Drug policy
- (8) Legal frameworks

Others

- (9) E. g., meta areas (evaluation of research activities or funding structures)

¹ We selected this concept as it is the commonly used technical term, but in the understanding in this document that it covers both, research related to supply as well as supply reduction.

2 METHODOLOGY

This chapter summarises key study challenges and describes our approach and methods. A definition of research is described, as is our approach to overcome the core problem of how to handle multiple EU languages. Further methodological details for specific parts of the study are described later in Chapters 3 through 6.

2.1 Study challenges

A comprehensive stocktaking of EU research on drugs is far from a straightforward exercise, given the sheer number of MS, languages, research fields and disciplines, must tackle the following problems:

- (1) The research definition problem: surprisingly, there is no commonly accepted definition in the scientific community as to what constitutes 'research'.
- (2) The language problem: 23 languages are spoken in the EU. Limitations in time and resources precluded a search for research activities and products in all of these languages.
- (3) The problem of research visibility: given the resources and timetable for the present study, it was not possible to interview a representative sample of researchers in all MS about their scientific work.
- (4) The problem of research quality: "to identify strengths and weaknesses in EU-drug-related research ..." (one objective of the study) requires an evaluation of current research quality. It would have been practically impossible to evaluate all research activities in Europe.
- (5) The problem of evaluation criteria for research gaps: the study topics also include the identification of research deficits. Unfortunately, there are no objective reference criteria to make such a judgement. View about research needs can differ widely reflecting individual and national perspectives.
- (6) The problem of selecting key informants: it was agreed with the commissioners to use a targeted sample of key informants as a source of information. Both the scope of the study and the fieldwork timetable precluded a representative survey of researchers and representatives from funding agencies and other offices.

These challenges underscored the need to make operational decisions so that the work would be viable and deliverable. They also highlight the inherent limitations of this stock-take exercise.

2.2 Outline of the study concept

Table 2.1 provides an overview of the objectives, tasks and areas of analyses, reflected in the tender document, as well as specific topics and the selected sources of information. Further details of the study procedures are presented in Chapters 3 through 6.

(1) To map key research activities in Europe

This objective covers research activities in all 27 MS as well as a specific analysis of those projects funded by the European Commission or other European organizations. We developed a matrix to organise the recording of information about research activities and to analyse trends (see Appendix 1.1). As core indicators of research activities we selected descriptions of *research projects* and *research publications* (Appendix 4 and 5). Our sources of information

were EMCDDA data (especially the Selected Issue on “National Drug-related Research in Europe 2008”, Appendix 2.1), databases and other internet information from the DGs and from national websites, two large databases of scientific publications (PubMed and Scopus, see Appendix 2.1), interviews with key experts (see Appendix 2.2) and national contact persons (see Appendix 2.3). Results are presented in Chapter 3.

(2) To map and analyse research structures in Member States and (3) To map and analyse research structures at EC and other EU agency level

These two objectives correspond to objective (1) but are related to the structure of research and research funding in MS and on the European level. We developed an inventory to map these research structures, including information on research capacity, infrastructure, models of coordination in MS and at the European level. We also analysed available information on budgets and the prioritisation of research topics. Sources of information were national databases, websites, national policy papers and funding programmes as well as European funding programmes. Results are presented in Chapter 4.

(4) To map and analyse research activities and structures in Australia, Canada and the USA

We analysed information on research areas and research structures relating to three overseas comparison countries – Australia, Canada and the United States of America. Sources of information were commissioned reports from country experts (Annex 3.2). Results are presented in Chapter 5.

(5) To identify strengths and weaknesses in drug-related research in Europe

In order to achieve an overall evaluation of drug-related research, we linked information on research activities, research structures and the three international comparison countries, to a research needs assessment derived from EC and MS research priority documents and our conceptual model. The areas of analyses were identical with those of the previous objectives, as were the sources of information. Results are presented in Chapter 6.

(6) To assess options for strengthening drug-related research in Europe

Based on the results of objective 5, possible options for improvements were developed. The analysis and sources of information followed our work on earlier objectives. Results are presented in Chapter 7.

Altogether we searched for, compiled and analysed:

- Some 3,000 publications which matched the inclusion criteria (see Appendix 5).
- Approximately 260 project descriptions.
- Information accessed from approximately 320 websites on research activities and structures at the level of MS, EC and other European organizations.
- Information gathered from 40 interviews with key representatives from 13 selected MS, 3 Directorate-Generals of the European Commission and several other organizations in Europe (EMCDDA, Pompidou Group, UNODC and WHO Europe).

Table 2.1 Study concept: Objectives, tasks, topics and sources of information

Objectives ¹⁾	Tasks ¹⁾	Areas of analysis ¹⁾	Specific topics ²⁾	Sources of information ²⁾
(1) Map and analyse key research activities in EU ⇒ Chapter 3	(1) Develop research matrix	(1) Research areas Disciplines Trends	(1) Research projects Research publications	(1) EMCDDA national reports Websites Project and publication databases Interviews National contact persons
(2) Map and analyse research structures in MS (3) Map and analyse research structures at European level ⇒ Chapter 4	(2) Develop inventory of research structures in MS (3) Review EU funding	(2) Research capacity Infrastructure Model of coordination in MS (3) EC / European level	(2)/ Research structures (3) Programmes Priorities Budgets Budget allocation Participation of MS in EU funding	(2)/ Interviews (3) Websites MS research programmes EC funding programmes
(4) Describe research activities and structures in Australia, Canada and USA ⇒ Chapter 5	(4) Brief comparative description	(4) Research activities Research structures (see 1-3)	(4) See (1) – (3)	(4) Commissioned reports
(5) Identify strengths and weaknesses in EU: Research activities Research structures	(5) Link (1) with (2) and (3): identify EU strengths / weaknesses (6) Compare EU funding	(5) See (1) – (3) (6) See (1) – (4)	(5) See (1) – (3) (6) See (1) – (4)	(5) See (1) – (3) (6) See (1) – (4)

⇒ Chapter 6	output with AUS/Can/USA			
(6) Assess options for strengthening the drug-related research infrastructure ⇒ Chapter 7	(7) Assess current state, develop options for improvement	(7) See (1) – (4)	(7) See (1) – (3)	(7) See (1) – (6)

¹⁾ Defined in tender document, ²⁾ developed by project group

2.3 The definition of research

The study tender document did not provide a definition of 'research'. In the Commission's non-paper on the EU knowledge infrastructure (European Commission, 2007) a graphic shows the overlap between different components of drug-related knowledge infrastructure. This highlights how difficult it is to define and separate research from other sources of knowledge acquisition. Table 1 of that paper gives examples of different types of research (applied, fundamental and experimental) but demonstrates the uncertainty of such classifications. For example, 'programme evaluation' is often classified as applied research, whereas the example given in Table 1 for applied research (pilot studies) underestimates the relevance of this type of research. And 'experimental research' placed in a separate category fails to consider that such studies might be *applied* (e.g. treatment evaluation) or *basic* (e.g. effects of substances on brain functions, or on mediators of formal interventions for change).

Accordingly, we sought an operational definition of research. Generally speaking, 'research' describes the gathering of information to answer a question and advance knowledge. But, since this definition also includes activities such as monitoring or compiling best-practice programmes, we used a more narrow scientific definition of research, as: "...performing a methodological study in order to prove a hypothesis or answer a specific question" (<http://www.experiment-resources.com/definition-of-research.html>). Here, research is characterised by the use of scientifically accepted methods and procedures. Although the methods differ widely between the natural and social disciplines, there is a core distinction between basic research (advancement of knowledge in general) and applied research (providing new/better solutions for existing problems) as well as a distinction which captures the method of the research (i.e. the use of quantitative or qualitative methods). Our narrow definition leads to the exclusion of projects and publications related to conferences, guidelines or implementation and best practice studies which do not contain an evaluation component.

Given these reflections, we applied the following procedure:

- Research activities were preselected according to the narrow scientific research definition mentioned above, and allocated to the research areas and specific fields according to our framework (see sections 1.2.3 and 3.1.2).
- Research activities were only included after a rating of each project description and publication according to the described scientific criteria (for details see section 3.1.1).
- Every project was rated by several staff members independently.
- Activities were excluded if they predominantly focused on capacity building, implementation projects without evaluation and work that did not have a focus on illicit drugs.
- Each study was checked to evaluate the specific content of the work undertaken, and not the mission of the financing organization.

This procedure meant that we not only covered projects from DG RTG but also analysed those funded by DG ENTR, DG JLS, DG SANCO, DG TREN and the EMCDDA² even if these organizations did not formally fund research studies.

² DG ENTR Directorate-General Enterprise and Industry
DG JLS Directorate-General for Justice, Freedom and Security
DG SANCO Directorate-General for 'Health and Consumers'
DG TREN Directorate-General Energy and Transport
EMCDDA European Monitoring Centre for Drugs and Drug Addiction

2.4 The handling of the language problem

To map and analyze research in 23 MS languages is daunting and practically impossible. And any selection of languages (e.g. according to the number of people speaking) creates a selection bias. Population size is also not a fair criterion since some native languages (e.g. those spoken in The Netherlands, Finland and Sweden) correspond to relatively small populations but represent very active national producers of high-quality drug-related research.

After considering these issues, we derived our procedure from the overall objectives of the EU and the EC. According to the Lisbon Strategy (2000), the EU strives to be the leading knowledge-based region in the world; and research and technology development is a major component of strategic efforts to reach that goal. The European Research Area (ERA) is a research equivalent to the common European economic market and encourages Europe-wide research co-operations to establish a European scientific community. Both aspects (the visibility of Europe with the aspiration to be the leading (research) region in the world and the goal of creating a cohesive European scientific community) require a worldwide and Europe-wide understandable language. Therefore, English is unavoidably the *lingua franca* of scientific exchange.

The rationale for English as the basis for the analysis of research activities is also politically emphasised for the field of drug-related research. In November 2006, the Finish Presidency concluded, that "... international scientific interaction is as essential as information on funding possibilities"; and among others, provisions for creating European "... networks of excellence..." are needed (for references see European Commission, 2007). But all these initiatives need a common language.

We readily appreciate that a good deal of relevant research produced by MS is not written in English. Many research products are only presented in the national language or published in national language scientific journals and many are not referenced in English. As a compromise - and with the support of our commissioner - we searched for research projects and publications in all 23 MS languages where there was at least an English title and abstract. We acknowledge that this approach is less than desirable, but it was born of necessity and considerably greater resources would have been needed to do otherwise. However, to understand the impact of our stress on international visibility and accessibility, two specific analyses of French research projects and publications from Germany were conducted. In both cases, neither English title nor abstract were provided (see Chapter 3.4).

2.5 Quality control

Quality control was an essential part of our work to ensure the accuracy and comprehensiveness of information and the transparency and understanding of our analyses and conclusions. There were also methodological limitations here relating to time and technical restraints (e.g. by time frames, number of interviews and search criteria). Following agreement with the commissioner, we developed the following procedure:

- All major procedural decisions for the study were agreed with DG JLS (e.g. projects and publications as indicators of research activities, related search criteria, topics for the analysis of research structures, selection of MS for interviews and time frames).
- Matrices and interview guidelines for the examination of projects and publications (see Appendix 1) were sent to the Advisory Group and DG JLS for feedback (see Appendix 2.4).
- Interview notes were given to the interviewees for comments (see Appendix 2.2), and afterwards integrated into the country reports.

-
- Country reports (Appendix 3.1), based on deskwork (and interview results in 13 selected MS) were sent to (1) interviewees, (2) National Focal Points (NFP) and (3) additional experts if requested by the NFP (Appendix 2.3).
 - The draft of the final report was commentated on by the Advisory Group.

3 ASSESSMENT OF DRUG-RELATED RESEARCH ACTIVITIES

This chapter covers the first objective of the study – to map key research activities in Europe. We provide an overview on research areas for all projects and publications in MS, with additional detailed analyses of MS policy research priorities, EC funded projects and projects of European research networks without EC funding (section 3.2). Research trends are described in section 3.3. In section 3.4, we discuss our exemplary analysis of research activities in France and Germany (which were not covered by our inclusion criteria).

3.1 Procedure

3.1.1 Inclusion and exclusion criteria for research projects and publications

We assessed two indicators of research activities: research projects and scientific publications. Our definition of research (see section 2.3) resulted in formal quality and relevance criteria, either derived for projects from our research definition (adequate research methodology) or for publications from internationally valid criteria (accepted and cited at least once in a peer-review journal with English title and abstract). Furthermore – because of the European focus of the study and the EU claim for international competitiveness – we considered worldwide visibility and accessibility as relevant inclusion criteria (Table 3.1).

Table 3.1: Inclusion criteria for research projects and publications

Projects	Publications
<p>Quality</p> <ul style="list-style-type: none"> • Covering an activity according to our research definition (see section 2.3) • Based on a research methodology which is accepted by the related scientific discipline 	<p>Quality</p> <ul style="list-style-type: none"> • Published in a peer-reviewed journal • Cited at least once in a peer-reviewed journal • Covering an activity according to our research definition (see section 2.3) • Based on a research methodology which is accepted by the related scientific discipline
<p>Visibility and accessibility</p> <ul style="list-style-type: none"> • Project description with title and abstract or full-text in English • Traceable by standard search strategies 	<p>Visibility and accessibility</p> <ul style="list-style-type: none"> • Journal publication with title and abstract or full-text in English • Listed in either “SCOPUS” or “PUBMED”
<p>Study reference period</p> <ul style="list-style-type: none"> • Carried out during between 2001 and 2006 	<p>Study reference period</p> <ul style="list-style-type: none"> • Published in either 2001/2002 or 2005/2006

The criteria for excluding research activities directly result from our inclusion criteria (Table 3.2): With regard to publications it was agreed – for reasons of practicability – to focus on two 2-year-periods (2001/2002 and 2005/2006) and to leave out publications in the two years in between (2003 and 2004).

Table 3.2: Exclusion criteria for research projects and publications

Projects	Publications
<p>Quality</p> <ul style="list-style-type: none"> Other project activities which do not meet our definition of research activities (e.g. conference grants, implementation or best practice reports without evaluation) 	<p>Quality</p> <ul style="list-style-type: none"> Publications in grey literature, monographs and journals without peer-review Journal publications without at least one citation
<p>Visibility and accessibility</p> <ul style="list-style-type: none"> Project descriptions without title and abstract or full-text in English 	<p>Visibility and accessibility</p> <ul style="list-style-type: none"> Non-English language publications without English title and abstract
<p>Study reference period</p> <ul style="list-style-type: none"> Finished before 01/2001 or started later than 12/2006 	<p>Study reference period</p> <ul style="list-style-type: none"> Not published in 2001/2002 or 2005/2006

The analysis of both research projects and research publications as indicators of research activities might be seen as a form of double counting; but based on a pilot study in some research groups, both approaches were selected to give a broad assessment of research in Europe. However, several limitations and obstacles must be acknowledged:

- Parts of research activities were financed by regular institutional budgets. In those cases project applications or descriptions are less available.
- Not all research activities result in accessible publications. Sometimes products are only in the national language and take their place among the “grey literature”. And some publications in national languages are without English title and abstract. In both instances the research results remain largely invisible to the international scientific and policy audience.

3.1.2 Matrices for compiling the information

In order to compile and structure the information gathered throughout the study process, we developed a conceptual framework, or *matrix*, to record details of research activities. Given the multidisciplinary nature of drug-related research, a major component of this matrix was the specification of research areas and specific fields. Table 3.3 displays four major areas we used as indicators of research activities (projects and publications) and the related research fields. Derived from our conceptual model, these areas cover the *understanding of drug-use behaviour* (drug mechanisms, aetiology and course of drug-use, epidemiology) *demand* and *supply reduction* as well as *policy analysis*. The “others” category includes for example literature reviews and is not considered in the further analyses, as the respective activities do not reflect new research but summarise previous, already published research. Sub-topics and a detailed description of the coding system are presented in Appendix 1.1.

In general, research areas and specific research fields are identical for projects and publications. There are only minor differences with regard to the sub-topics of “basic research”. As it is a major criterion (and keyword/index term for searches) whether a for scientific paper reports work on humans or animals, this was considered in the respective classification. However, this differentiation is not crucial for research projects; therefore the sub-topics in this

case cover research fields. And when addressing the area “basic research” as a whole, these classification differences disappear.

Table 3.3: Areas and specific fields for the coding of research activities

Projects	Publications	
Understanding drug-use behaviour³		
Basic research	Drug mechanisms, effects and methods of detection Basic research on mechanisms and effects related to pharmacology, toxicology and clinical psychology	Basic science 1: Animals Animal based or in-vitro research into neurobiological, pharmacological, and behavioural substance use mechanisms and effects
	Aetiology and course Analysis of factors and processes involved in onset and progression of drug-use (disorders) as well as research on the interaction of early vulnerability factors and later risk factors	Basic science 2: Humans Research into the aetiology and development of drug-use (disorders) in humans, the mechanisms of action, the measurement of substance use related consequences and the development of methods of detections
Epidemiology Research on prevalence and incidence, on use patterns, risk groups and health and social consequences in the general and sub-populations	Epidemiology Research on prevalence and incidence, on use patterns, risk groups and health and social consequences in the general and sub-populations	
Demand reduction		
Intervention (prevention and treatment) Research on prevention activities (universal and selective prevention activities targeted at drug-use related behaviour of individuals and groups) as well as treatment activities: all studies on formal and informal psychosocial, psychological and pharmacological treatment measures and self-help groups, and also includes harm reduction	Prevention Universal and selective prevention activities targeted at drug-use related behaviour of individuals and groups Treatment incl. harm reduction All studies on formal and informal psychosocial, psychological and pharmacological treatment measures and self-help groups, and also includes harm-reduction	
Supply reduction⁴		
Drug supply Studies on different stages of illicit drug supply including cultivation and production, trafficking and diversion/ leakage as well as drug markets and distribution Interdiction Research on drug-related crime and law enforcement (organised crime, money laundering, security issues)	Drug supply and criminology Aspects of crime behaviours, studies on drug markets and drug distribution	
Policy analysis		
Policy Research on domestic and supra-national drug policy related to both demand and supply reduction	Policy and legal frameworks Research on domestic and supra-national drug policy related to both demand and supply reduction; analysis of type and	

³ The first two topics on the left and right side cover together the same field of basic research, but are structured differently.

⁴ We selected this concept as it is the commonly used technical term, but in the understanding in this document that it covers both, research related to supply as well as supply reduction.

Legal frameworks Analysis of type and impact of drug-related law as well as regulatory practices (drug classification and control)	impact of illicit drug-related law as well as regulatory practices
Others⁵	
E. g., meta areas Research activities dealing with reviews and evaluations of drug research in general as well as of funding structures	Reviews

3.1.3 Sources and processing of information

A variety of sources was taken into account to compile the necessary information for the present study. A comprehensive list including references is presented in Appendix 2. These sources can be broadly categorised in seven groups:

- National Reports to the EMCDDA 2007 including a Selected Issue on “Drug-related research in Europe” (Appendix 2.1)
- Project and publication databases at MS and EC level (Appendix 2.1)
- Websites of relevant national, European and international institutions and organizations (Appendix 2.1)
- Interviews with key informants in selected 13 MS (Appendix 2.2)
- Interviews with key informants from DG JLS, SANCO and RTD, Pompidou Group, UNODC and WHO Europe (Appendix 2.2)
- Information from national contact persons, including members of NFP (Appendix 2.3)
- Information from the Project Advisory Group (Appendix 2.4)

In a first step, publicly available information on drug-related research activities was collected by deskwork. We analysed the national reports to the EMCDDA and databases and websites of relevant institutions. Based on this initial sweep, brief preliminary country reports for all 27 MS were compiled (Appendix 3.1). In a second step, we conducted structured interviews with key informants from a sample of 13 MS⁶ to obtain a more in-depth picture of research activities. Finally, all concise country reports were sent to national contact persons to ask for feedback. Additional information concerning research activities provided by interview partners and national contact persons were checked for the inclusion criteria of the study and included if eligible.

3.2 Research activities in Europe

3.2.1 Research projects

(1) Projects and research priorities in Member States

Table 3.4 provides an overview on all research projects carried out in the MS in the timeframe 2001 to 2006. Research activities are classified according to the research areas described above. Table 3.3 also indicates research priorities as reported in the 2007 national reports to the EMCDDA (based on an analysis of official MS national policy papers). Priorities for every MS were marked in the table (p=published national research priorities).

⁵ Not covered in the further analyses

⁶ Large (Italy, France, Germany, Poland, Spain, UK), Medium (Belgium, Czech Republic, Netherlands, Sweden), Small (Finland, Ireland, Latvia)

Table 3.4: Research areas and fields covered by numbers of projects in member states (2001-2006) and by research priorities defined in official member state policy papers (p) ¹⁾

	Understanding drug-use behaviour		Epidemiology	Demand reduction	Supply reduction		Policy analysis		Others	Total
	Basic research	Drug mechanisms Aetiology and course		Intervention (prevention and treatment)	Drug supply	Interdiction	Policy	Legal frameworks	E.g. Meta areas	
Austria	1			3				1		
Belgium			6	2 P		3 p				11
Bulgaria			1	P	p					1
Cyprus			5 p	P						5
Czech Republic	2		6	1 P			1 p	1 p		11
Denmark			4	10 P		p		p		14
Estonia			3 p	p						3
Finland			5 p	1 p		1	p			7
France	7	1	4 p	1 p	1	p				15
Germany	3	p	1 p 0	20 p					2	35
Greece	p	p	4 p						2	6
Hungary			3 p	p	p					3
Ireland	1	3	1 p 1	4		3				22
Italy			3	1 p	p					4
Latvia			5 p							5
Lithuania			3	p	p					3
Luxembourg			2 p	1 p	p				1	4
Malta			5 p					p		5
Netherlands	1		3	8			p			12
Poland			7 p	1 p						8
Portugal			7 p	p						7
Romania			5 p							5
Slovakia	2	1	2 p	1 p			p			6
Slovenia	1		4 p	1						6
Spain	1 p		2 p	3 p	1	2				9
Sweden	1		3	1 p	p	2				7
United Kingdom	4	4	1 0	20 p	p			1	1	40

	Understanding drug-use behaviour			Demand reduction	Supply reduction		Policy analysis		Others	Total
	Basic research	Drug mechanisms	Aetiology and course	Epidemiology	Intervention and (prevention and treatment)	Drug supply	Interdiction	Policy	Legal frameworks	
Total (projects) ²⁾	24 (9 %)									9 (4 %)
Total (MS research priorities)	2 (4 %)	2 (4 %)	17 (30 %)	19 (33 %)	7 (12 %)	3 (5 %)	4 (7 %)	3 (5 %)		57

¹⁾ Shaded areas indicate the most prominent research areas according to the national number of projects.

²⁾ "Others" not considered in the calculation of percentages.

Inspecting the coded *projects*, Table 3.4 clearly shows that the most prominent research fields in MS are ‘epidemiology’ (50%) and ‘intervention’ (30%). Considering sub-categories of this classification (not displayed in the Table), the majority of epidemiological studies are *surveys* either among the general adult population or among students/school-aged children. A considerable number of these studies is carried out in the framework of larger European/international research networks (see below). Within the area of intervention, there is a clear dominance of *treatment* studies which account for about 80% of the projects. At great distance, some research efforts could be identified in the fields of ‘basic science research’ (13%, with a higher priority in drug mechanisms), ‘supply reduction’ (6%) and ‘policy analysis’ (2%).

A horizontal reading of Table 3.4 additionally reveals significant differences in the distribution of projects between MS. Most countries concentrate on a small selection of research fields, but none appear to deal extensively with a broad range of topics. However, as compared to the “old” EU-15 MS⁷, many new MS⁸ have a sole focus on epidemiology (with Czech Republic, Poland, Slovakia and Slovenia being the exception). Virtually all studies on interventions, and to a lesser extent studies on drug mechanisms, supply reduction and aetiology, are located in the EU-15 countries. The number of projects varies considerably between MS, from 1 to 40 in a 7 year period, with a low correlation with population size.

Research priorities have been formulated by policy-makers in MS and summarised by the NFPs of the EMCDDA in their Annual Report 2007 (EMCDDA, 2008a) and in various national policy papers. Three major conclusions can be drawn from Table 3.4:

- A large number of countries define research priorities in the field of epidemiology, including a need to support prevalence surveys of drug use in the general population and specific/marginalised target groups, as well as for studies on consumption patterns and drug-related problems.
- A second equal priority is found in arena of treatment intervention studies. Here, mainly treatment outcome studies assessing the efficacy and effectiveness of different interventions are considered necessary. Moreover, the importance of evaluation studies of primary and secondary prevention activities are also stressed.
- Research in the areas of basic research and supply reduction, as well as policy analysis are considered of lower priority in the MS. It can be speculated that this may be due to the fact that there is no strong tradition for assessing and utilizing knowledge from research results on drug supply, supply reduction, measures and policy analyses for national drug policy. Moreover, supply reduction measures are much more regulated on a European or supranational level leaving less scope of action for single MS. And basic research might not be seen as relevant for current policy development and implementation.

Notable differences emerge when contrasting project and national research priorities for research activities: Especially research needs in supply reduction and policy analysis are scored higher by MS than the actual share of projects in these areas.

(2) European Commission funded projects 2001 – 2006

Table 3.5 covers those research projects from Table 3.4 that have been funded by the European Commission. A total of 34 drug-related research projects out of 259 (13%) were identified. Among those, roughly half addressed interventions and approximately a quarter dealt either with basic research (again with a focus on drug mechanisms) or supply reduction (27%; MS projects: 6%). Contrary to the clear research focus of the MS on epidemiology, this area

⁷ EU-15 MS: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain, Sweden, United Kingdom

⁸ EU-12 MS: Bulgaria, Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Romania, Slovakia, Slovenia

does not play a significant role in EC funded research; and contrary to the relevance in EC documents, no research on policy analysis could be identified.

Table 3.5: Research areas and fields of projects funded by the EC (2001-2006) ¹⁾

	Understanding drug-use behaviour			Demand reduction	Supply reduction		Policy analysis		Others	Total
	Drug mechanisms	Aetiology and course	Epidemiology	Intervention (prevention and treatment)	Drug supply	Interdiction	Policy	Legal frameworks	E.g. Meta areas	
DG RTD	8	1		7		3				19
DG SANCO			1	5	1					7
DG JLS				3	1	4				8
Total EC funded projects ²⁾	8 (24 %)	1 (3 %)	1 (3 %)	15 (44 %)	2 (6 %)	7 (21 %)				34
Total (MS funded projects) ^{3), 4)}	16 (7 %)	8 (4 %)	125 (57 %)	61 (28 %)	0 (0 %)	5 (2 %)	2 (1 %)	2 (1 %)		219

¹⁾ Shaded areas indicate the most prominent research areas according to the number of projects

²⁾ No eligible projects funded by DG TREN and DG ENTR were found

³⁾ Figures derived from Table 3.4 (only MS funded projects). "Others" not considered in the calculation of percentages.

⁴⁾ The full list can be found in App. 4.2

Shaded areas indicate the most prominent research areas according to the number of projects.

With regard to the MS being main beneficiaries in EC funded projects, a small cluster of four to five prominent countries were identified. Seven out of the 34 projects were coordinated in Germany, six in France, Spain and the UK, and three in Sweden. For the remaining six projects, the main partners were Belgium, Denmark, Italy, Finland, Latvia and Slovakia. A full list of all EC funded projects with detailed information is presented in Appendix 4.2.

(3) Nationally funded European projects and networks

A considerable proportion of research projects identified in the MS was conducted within the framework of European/international research networks (76 out of the 259 projects; 29%): two in the fields of epidemiology and one in the intervention arena:

- The European School Survey Project on Alcohol and Other Drugs (ESPAD) is a cross-sectional research project on adolescent substance use that is conducted every four years. The project was initiated in 1993 by the Swedish Council for Information on Alcohol and Other Drugs (CAN) and is supported by the Pompidou Group at the Council of Europe, the Swedish Ministry of Health and Social Affairs and the EMCDDA. Within the timeframe of our study, one ESPAD survey was conducted (2003) with 25 participating MS (with the exception of Spain and Luxembourg).
- The Health Behaviour in School-aged Children (HBSC) study is a collaborative cross-national project on patterns of health including substance use behaviours among young people. HBSC, which is also conducted every four years, was initiated in 1982 and adopted by the World Health Organization as a collaborative project. Two HBSC surveys were conducted within the timeframe of our study. In 2002/2003, 22 EU MS participated

(with the exception of Bulgaria, Cyprus, Luxembourg, Romania and Slovakia) and in 2005/2006, 25 MS participated (with the exception of Bulgaria and Cyprus).

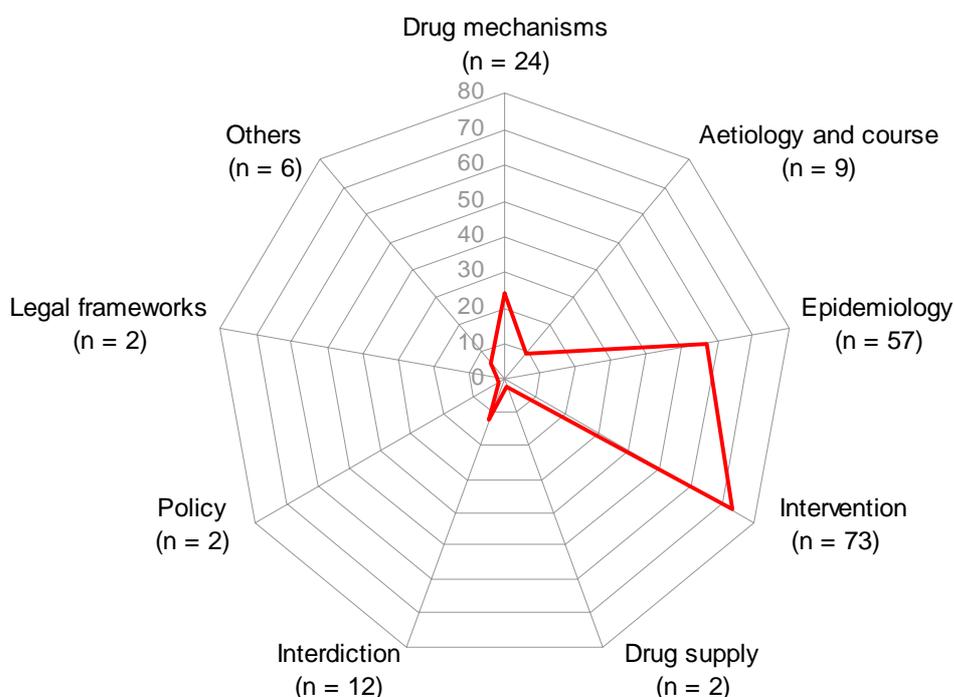
- The International Cannabis Need for Treatment (INCANT) study is a multi-site transnational randomised controlled trial to evaluate the effectiveness of Multidimensional Family Treatment in cannabis use disorders. The project started in 2003 with four participating MS (Belgium, France, Germany, and the Netherlands).

In contrast to EC funded network projects all studies conducted within these networks are nationally funded. Despite a common research concept and overall organization, the implementation and funding lies within the sole responsibility of each participating country.

(4) Research projects in Europe without multiple counting of European networks

For the preceding description of research projects in the MS (Table 3.4), national funded European network projects have been included for all participating countries (multiple counting of one project such as ESPAD). This approach is reasonable when the MS perspective is considered. Network projects are an important part of national research activities and contribute considerably to the national drug-related knowledge base. Moreover, as the funding for network projects is realised on a national level, these studies become part of the national research infrastructure. However, on the European level the multiple considerations of nationally funded network projects leads to a bias with respect to the distribution of research areas, since all network projects represent only one single study (the EC funded projects are also only counted once, independent of the number of involved countries). Therefore, Figure 3.1 displays the amount of projects in each research area, counting activities within the three nationally funded networks as only one project each.

Figure 3.1: Research areas and fields covered by projects in the EU (n = 187, 2001-2006)⁹



⁹ For Figure 3.1 projects conducted within the following network were recounted: ESPAD 2003 (counted once for all 25 participating countries), HBSC 2001/2002 (counted once for all 22 countries), HBSC 2005/2006 (counted once for all 25 countries), and INCANT (counted once for all 4 countries).

Figure 3.1 shows a similar pattern to the distribution of all projects on MS level shown in Table 3.4. Epidemiology (31%¹⁰) and interventions (40%) are the two dominant fields, followed at great distance by studies on basic science research (i.e. drug mechanisms and aetiology; 18%) supply reduction (drug supply and interdiction 8%) and policy analysis (policy, legal frameworks; 2%). But there is one difference in the priority sequences between the full (Table 3.4) and the revised list (Figure 3.1): Epidemiological projects now rank in second place, caused by the elimination of double-counting of projects conducted in international networks by several countries.

3.2.2 Research publications

Table 3.6 provides an overview on the research fields covered by scientific publications that have been compiled in either 2001/2002 or in 2005/2006. The most prominent research areas are marked. Again, national policy priorities are contrasted with these figures (from table 3.4). The distribution indicates a clear dominance of publications in the area of *understanding drug use*: basic science research (53%: two third with human subjects) and epidemiology (31%), account for 84% of all publications. Demand reduction related publications account for 13%, but with an extreme imbalance between the prevention (<1%) and intervention arenas (13%). Publications on supply reduction and policy analysis are very scarce (together accounting for just 2%). Compared to the corresponding full lists of projects in table 3.4, the major research fields have shifted from epidemiology (now in the second rank) to basic research, and demand reduction (especially treatment) has lost its high relevance. In both lists of research activities, supply reduction and policy analysis lag far behind.

When one inspects differences between MS, the number of publications reveals three groups of countries: a group of ten countries¹¹ with very few (up to ten) publications over the four years considered; a group of eleven countries¹² with more than ten but less than 100 publications; and an group of six countries¹³ with more than 200 (and up to 884) publications. Again, differences between EU-15 and the 12 new MS can be clearly seen. With the exception of Poland, Czech Republic and Hungary, the latter group shows only very few publication activities within a limited number of research fields. Especially in the fields of basic research, demand reduction and supply reduction, nearly all publications originated from old MS.

Again MS research priorities indicate sharp differences to the distribution of publications: The need for basic research is scored much lower (53% vs. 7%), and higher for demand reduction (13% vs. 33%), supply reduction (2% vs. 18%) and policy analysis (<1% vs. 12%).

¹⁰ All percentages calculated without consideration of area "others" (n = 182).

¹¹ Less than ten publications identified for Bulgaria, Cyprus, Estonia, Latvia, Lithuania, Luxembourg, Malta, Romania, Slovakia and Slovenia.

¹² 11 to 100 publications identified for Austria, Belgium, Czech Republic, Denmark, Finland, Greece, Hungary, Ireland, Poland, Portugal and Sweden.

¹³ More than 200 publications identified for France, Germany, Italy, the Netherlands, Spain and United Kingdom.

Table 3.6: Research areas and fields covered by publications in member states (2001/2002 and 2005/2006) and by research priorities defined in official member states policy papers (p) ¹⁾

	Understanding drug-use behaviour			Demand reduction		Supply reduction	Policy analyses	Others	Total
	Basic research	Brain science 1 Animals	Brain science 2 Humans	Epidemiology	Prevention	Treatment incl. harm reduction	Criminology and drug supply	Policy and Legal frameworks	
Austria	3								18
Belgium	15	34	18	p	7 p	2 p		14	90
Bulgaria		2	1	p	1 p	p			4
Cyprus			p	p	p				0
Czech Republic	6	9	10	p	2 p		p	10	37
Denmark		7	10	p	3 p	2 p	1 p	10	33
Estonia	3	2	1	p	p			4	10
Finland	4	18	12	p	5 p		p	9	48
France	60	61	73	p	33 p	2 p		49	278
Germany	48 p	110 p	96 p	1 p	38 p	6		85	384
Greece	1 p	14 p	5 p					8	28
Hungary	7	7	4	p	p	p		5	23
Ireland	14	12	30	p	4	1		5	66
Italy	65	82	51	2 p	29 p	2 p		54	285
Latvia			p						0
Lithuania			2	p	p	p		1	3
Luxembourg		2	2	p	p	p		1	5
Malta		1	p				p		1
Netherlands	17	76	65	1	23	3	p	42	227
Poland	27	30	4	p	1 p			13	75
Portugal	17	9	3	p	1 p			5	35
Romania		1	1	p					2
Slovakia			2	p	1 p	1 p			4
Slovenia		3	1	p				3	7
Spain	6 p	104 p	87 p	p	39 p	2	1	63	364

	Understanding drug-use behaviour		Demand reduction		Supply reduction	Policy analyses	Others		
	Basic research		Epidemiology	Prevention	Treatment incl. harm reduction	Criminology and drug supply	Policy and Legal frameworks	Reviews	Total
	Brain science 1 Animals	Brain science 2 Humans							
	8								
Sweden	1 2	27	23	p	6 p	1 p	3	14	86
United Kingdom	7 8	212	24 7	3 p	123 p	22 p	1	198	884
Total (publications)¹⁾	445 (18 %)	841 (35 %)	759 (31 %)	9 (<1 %)	324 (13 %)	43 (2 %)	6 (<1 %)	601	3,028
Total (MS research priorities)	4 (7 %)	17 (30 %)	19 (33 %)	10 (18 %)	7 (12 %)				57

¹⁾ Shaded areas indicate the most prominent research areas according to the national number of publications.

²⁾ "Others" not considered in the calculation of percentages.

3.3 Research trends

3.3.1 Research projects

Trends in research projects were evaluated by means of a comparison between the results of the present study and a previous review of drug-related initiatives in the EU (Kenis, 1996). This earlier study did not publish quantitative data on projects but summarised the priorities for research at that time as follows (Table 3.7):

- High priority: (1) prevalence, incidence and patterns of drug-use, (2) risk factors and effects of the use of drugs and dependency
- Medium priority: (1) primary prevention of drug-use, (2) treatment and treatment services for drug-users, (3) drug policies and drug control strategies
- Low priority: (1) aetiology of drug-use, (2) health and social care services for drug-users, (3) social, economic and other consequences of drug-use, (4) drug supply, (5) detection of drugs and drug profiling, (6) knowledge, attitudes and opinions on drugs.

Compared to our results on the distribution of projects (Table 3.4, Figure 3.1) and of research priorities of MS (Table 3.4), the following conclusions can be drawn:

- (1) Basic science research has less priority than in the past.
- (2) Epidemiology continues to be one of the two major research foci.
- (3) Research on interventions changed from medium to top relevance. But this is only true for treatment, whereas prevention went to low priority (data not shown in Table 3.6)
- (4) Supply reduction continued to be of low relevance (despite the high interest of some MS, see Table 3.3) and the EC
- (5) Policy analysis receives less interest than before.

Table 3.7 Trends in research project priorities 1996 vs. 2001-2006 (based on Kenis, 1996 and current analyses)

		Kenis (1996) ^{1) 2)}	Current analysis ²⁾
Understanding drug-use behaviour			
Basic research	Drug mechanisms	●●●	●
	Aetiology and course	●	●
Epidemiology		●●●	●●●
Demand reduction			
Intervention (prevention and treatment)		●●	●●●
Supply reduction			
Drug supply		●	●
Interdiction		●	●
Policy analysis			
Policy		●●	●
Legal frameworks		●●	●

¹⁾ Additional, very specific fields with low priority: health and social services (beyond treatment); social, economic consequences; detection of drugs; knowledge, attitudes and opinions on drugs.

²⁾ ● Low priority. ●● medium priority. ●●● high priority.

3.3.2 Research publications

With regard to publications, research trends can be assessed by comparing papers published in 2001/2002 and those published in 2005/2006 (based on Table 3.6). However, it should be borne in mind that the analysis of several time frames is needed to draw robust trends. The following conclusions can be drawn:

- (1) There is an increase of about 20% in the overall number of publications: from 1,381 publications in 2001/2002 to 1,647 publications in 2005/2006.
- (2) The largest increase can be observed with regard to the field of basic science research (+36%).
- (3) There have been no significant changes with regard to all other research topics: treatment remains a medium prevalent field, and supply reduction and policy analysis continues to account for a very small proportion of publications. In both 2001/2002 and 2005/2006, there are very few publications in the fields of prevention, criminology and drug supply and policy and legal frameworks.
- (4) Country specific trends can only be evaluated for those MS with a sufficient number of publications (i.e. France, Germany, Italy, the Netherlands, Spain and the UK). Comparable to the overall picture, there would appear to be only slight variations in their respective priorities, judged from the criterion of publication topic. There has been no change in Germany, Italy and Spain, with basic science research assessments being the most prominent area in both timeframes ahead of epidemiology. In France, the Netherlands and the UK, epidemiology was replaced as top priority in 2001/2002 by clinical and research assessments in 2005/2006. Moreover, in France, brain sciences have gained more importance over the years.

Table 3.8: Trends in research publication priorities 2001/2002 vs. 2005/2006 (based from Table 3.6 and publication year)

		Number of publications	
		2001/2002	2005/2006
Understanding drug-use behaviour			
Basic research	Brain sciences 1: Animals	192	253
	Brain sciences 2: Humans	354	487
Epidemiology		368	391
Demand reduction			
Prevention		4	5
Treatment (including harm reduction)		143	181
Supply reduction			
Criminology and drug supply		22	26
Policy analysis			
Policy and legal frameworks		6	2
Others			
Reviews		292	302
Total		1,381	1,647 (+19%)

3.4 Analysis of non-English language projects and publications in France and Germany

In order to estimate the extent of research activities which are not visible and accessible on an international level (and therefore do not meet the present study's inclusion criteria), two specific analyses of French research projects and German publications were conducted. Neither provided an English title and abstract.

Research projects in France

For France, the Interministerial Mission for the Fight against Drugs and Drug Addiction (MILDT) provided a complete list of all French drug-related research projects that were funded within the framework of their annual calls for tenders between 2000 and 2007. MILDT coordinates all governmental actions in the domains of drugs and addictive behaviours and it can be assumed that this list contains the majority of national research activities conducted in France. Excluding studies on legal drugs only, 81 relevant projects which have not been traced before by our search procedure could be identified from the total list. Four of these projects met the inclusion criteria of our study, leaving 77 projects that were not included. Based on the French titles and abstracts these projects were classified according to the research fields defined for our study. Table 3.9 indicates that research projects on "drug mechanisms" have the same top priority in the included as well as in the excluded projects. This is also valid for broader research areas like *understanding drug-use behaviour*. But the analyses also show that many research projects on aetiology in France did not meet the criteria for European and international visibility and were therefore not eligible for inclusion in the present study. Altogether the analysis of excluded projects indicates that (1) a large number of French projects did not meet the criteria for

European and international visibility (84 %) and that (2) the distribution of all projects (total) and included projects differs especially in the fields of aetiology, epidemiology and demand reduction.

Table 3.9: Analysis of projects in France with no English title and abstract (2000-2007)

	Understanding drug-use behaviour		Epidemiology	Demand reduction (prevention and treatment)	Supply reduction		Policy analysis		Others E.g. Meta areas	Total
	Basic research Drug mechanisms	Aetiology and course			Drug supply	Interdiction	Policy	Legal frameworks		
Projects included ¹⁾	7 (47 %)	1 (1 %)	4 (27 %)	1 (1 %)	1 (1 %)	1 (1 %)				15
Projects NOT included ¹⁾	27 (37 %)	16 (22 %)	10 (14 %)	11 (15 %)	2 (3 %)	2 (3 %)	2 (3 %)	3 (4 %)	4	77
Total (projects) ¹⁾	34 (39 %)	17 (19 %)	14 (16 %)	12 (14 %)	3 (3 %)	3 (3 %)	2 (2 %)	3 (3 %)	4	92

¹⁾ Percentages were calculated without the category "others"

Research publications in Germany

For Germany, the NFP of the EMCDDA provided a complete list of drug-related publications that were published in German-language scientific journals in 2005/2006. Unfortunately, such a complete list was not available for the years 2001/2002, so the study was restricted to only one two year period. The list for 2005/2006 contained a total of 69 papers for the two years. Twenty of these publications had already been covered by the inclusion criteria of the current study. Eight additional publications met the inclusion criteria but were not identified by the original search. These papers were added to the database. The remaining 41 papers did not meet the inclusion criteria (mainly because there was no English abstract). These publications were classified according to the research areas considered. The share of projects not covered by our inclusion criteria is relatively small (17%), and the distribution of all publications is rather similar for all topics except treatment (share of 23% vs. 16%).

Table 3.10: Analysis of German language publications with no English title and abstract (2005/2006)

	Understanding drug-use behaviour			Demand reduction		Supply reduction	Policy analyses	Others	Total
	Brain science 1 Animals	Brain science 2 Humans	Epidemiology	Prevention	Treatment incl. harm reduction	Criminology and drug supply	Policy and Legal frameworks	Reviews	
Publications included ¹⁾	19 (12 %)	58 (37 %)	53 (34 %)	1 (1 %)	25 (16 %)	2 (1 %)		44	202
Publications NOT included ¹⁾		5 (13 %)	8 (21 %)	5 (13 %)	21 (54 %)			2	41
Total ¹⁾	19 (10 %)	63 (32 %)	61 (31 %)	6 (3 %)	46 (23 %)	2 (1 %)		46	243

¹⁾ Percentages were calculated without the category "others"

Conclusions

The two sub-analyses on projects in France and publications in Germany which do not meet the criteria for international visibility (see Table 3.1 in section 3.1.1), offer a specific and highly selective picture for two MS and limited reference periods. The situation might be different for other MS or time periods. But we drawn two cautious conclusions are as follows:

- The international visibility and accessibility of documents in a non-English language is much better for publications than for project descriptions. This reflects continuous efforts of journals to implement peer review procedures and to include English titles and abstracts in national language papers, and of authors to publish increasingly in journals with international accessibility.
- The high rate of uncovered research projects is not welcome but might be due to the fact that the pressure for research groups to provide accessible project descriptions is low, and obligatory project description lists (which pertain to randomised clinical trials – do only exist for some specific funding programmes in MS and – separately – for every relevant Directorate General of the EC. Even if the French distribution bias of research topics of all projects and included projects is limited to some areas (especially aetiology and intervention). This non-visibility on an European and international level is a severe problem for European research information, cooperation and prioritisation, but also for the analysis of current research topics and deficits. (see section 6.2.2 for a more detailed discussion).

Altogether quantitative evaluations of research activities should be based rather on publications, whereas the analysis of topics and priorities should also consider research projects, as not all results from projects are published in international accessible publications.

4 ASSESSMENT OF DRUG-RELATED RESEARCH STRUCTURES

This chapter covers the assessment of *research structures* in MS (second objective) and at EC and other European agency level (third objective). The objectives are addressed in one chapter as the same indicators and criteria were applied.

4.1 Procedure

4.1.1 Topics of the assessment

To map and analyse *capacity*, *infrastructure* and *model of coordination* of drug-related research in MS were the tasks to address the second objective. Additionally details of the *research funding*¹⁴ situation and the *cooperation between researchers* were studied. At the European level the study also covered the first topics, and then analysed the *participation of national research communities in EU programmes and possible barriers for researchers*.

4.1.2 Sources of information

Within individual MS funding for drug-related research comes from a wide variety of sources, ranging from specific bodies aimed at supporting drug-related research, to governmental department funded projects, and also separate philanthropic bodies. Funding programmes of EU and other organizations in Europe are relative small in number and relatively straightforward to compile. The following institutions were covered from the EC Directorates – General for Health and Consumers (DG SANCO), Justice Freedom and Security (DG JLS) and Research (DG RTD). The following websites were also searched: WHO Europe, UNODC and of the Group of Combat Drug Abuse and Illicit Trafficking in Drugs (Pompidou Group) of the Council of Europe and the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA). Further information was gathered from interviews with key representatives.

4.2 Research structures in Member States

4.2.1 Research capacity and infrastructure

When assessing research capacity and infrastructure across the EU and in MS it is worthwhile considering what is meant by ‘capacity’. In general, we took this to mean a mixture of senior expertise, expert knowledge and critical research leadership with a track record in managing complex research projects and a publication record that has some significant international impact. The development of a strong research community requires a long term investment in many research areas before a mature and stable community of researchers is established.

In general, the picture regarding the size and quality of the national research capacities within MS is heterogeneous given that MS are of varying size, possessing a range of resources and infrastructures, and a differing levels of research expertise. Nonetheless, there would appear to be a concurrence in terms of the type of structures that are more actively involved in drug-related research. The major results are as follows:

- Based on the project director’s affiliation of the 259 research projects that were identified for this study (Table 4.1), it can be concluded that the majority of drug-related research in the

¹⁴ “Funding” was taken to denote any form of systematic financing of a research project by an external public or private organization. The financing is either based on a research proposal and a comparative evaluation (usual procedure) or on a “block grant” for the work of a research group without presenting specific research proposals.

MS is carried out at universities (50%) and public/governmental organizations (34%). Private organizations have limited input.

- The output from these different units is extremely variable. A few countries account for an excess of the university research units (Belgium, Denmark, Spain, and the United Kingdom), whereas in other countries public/governmental organizations are the key players (Luxembourg, Malta Poland, and Sweden).
- At a cross-national level, there are some good links between NFPs which assist in projects to share expertise and outputs. It has been noted by commentators that the focus of much of this is epidemiology and clinical work and there is a paucity of sociology, economics and criminology in this sphere of collaboration.
- In countries such as Germany, Spain and others, where specific research initiatives have been instituted, there is evidence that such projects increase the capacity, networks and overall quantity of research and they enhance the skill capacity considerably.
- There appears to have been a very substantial convergence in approach to drug policy in most MS which enables experience within different countries to be constructively shared. Moreover, it enables a firmer platform for basic and applied research to impact on future drug policy. An example of such influence is the treatment of opioid-dependence, where projects conducted in France, the Netherlands, Spain, Switzerland, Italy, Germany, Sweden, and the UK all provide research data that assists in formulating treatment policy at a national level.

Table 4.1. Categorisation of structures for drug-related research in the MS (2001 – 2006)

Research structures	N	%
Universities	129	49.8
Other public/governmental organizations	88	34.0
Private organizations/NGOs	34	13.1
Others	8	3.1
Total	259	100

4.2.2 Research coordination

Our analyses illustrate a lack of well-established and coordinated research efforts on illicit drugs in most MS. There have been two national network initiatives.

- In Germany, the interdisciplinary addiction research network (GARN), which consists of four regional research networks, plays a key role in drug-related research. It received research funding from 2001-2008 by the Federal Ministry of Education and Research within the framework of the Federal Government's Health-Research Programme.
- In Spain, the Network of Addiction Research (RTA) covers about a fifth of the national research groups. A share of 10% of its budget is invested in the coordination of research groups. The excellence of publications and the capacity to raise funds constitute funding criteria for the members.

Beside the aforementioned initiatives, the need of establishing national research cooperation and coordination is probably related to the size of the country. Across the different countries there is a substantial amount of informal networks and in some of the small countries, such as the Czech Republic, Finland and Poland, the lead institution functions as a key player in strategic approaches, in the prioritisation of research topics.

4.2.3 Research funding

National sources

The major funding sources in all MS are national public agencies. In first instance, these are a range of ministries (e.g. health, science, education, justice and social or interior affairs). Further on, funding is sourced via intermediate level funding bodies (either in addition to the ministries or instead of them). Nearly all of the analysed countries have such funding bodies. As a rule, these agencies act under the auspices of, and receive funding from, a ministry and function as an intermediary institution positioned between federal administration and the research institutions. In the majority of countries the intermediate level funding bodies play a more important role in research funding than the ministries themselves, since the greater amount of research funding is operated by these bodies. Despite the heterogeneity of the institutions involved in drug-related research funding, the above mentioned pattern in funding infrastructure recurs in almost all countries. Indeed, where there is a leading primary funding agency, it will act by default as a focus of co-ordination and strategic development unless there is an additional governmental committee to oversee and set priorities.

EC and international funding sources

In addition to the national funding activities for addiction research, the funding by the EC or other European or international bodies in Europe plays a modest financial role but carries status and is focus for many of the countries where the overall available research resources are limited. Most of the international resource appears to be to support communication and cooperation but occasionally it also supports data collection and analysis. Some of the projects are action based projects where little primary research is undertaken but they are listed here for the purpose of inclusiveness. In the attached listing (see list of EC funded projects, Appendix 4.2) the budgets for cooperative European projects are always allocated to the country of the leading research organization. Most of the money is transferred to project partners, so the total budgets do not reflect an allocation of EU funds to MS.

Other funding sources

Apart from national and EU funding, other sources play an important role within the funding structure only in a few countries. Primarily, there are philanthropic foundations that financially support research: In *Austria*, the Österreichische Nationalbank (OeNB), the central bank of the Republic of Austria, runs the Jubilee Fund for the promotion of academic research and teaching. In *Sweden*, the Knut and Alice Wallenberg Foundation is one of the largest financiers. In addition, an international Cannabis Project was supported by the Beckley Foundation in the UK, but this is resourced in Partnership with the Open Society and does not involve any primary data collection..

In all of the member states industry, primarily the *pharmaceutical industry* plays a minor role. In *Germany*, *Austria*, and the *UK* a few projects on intervention studies with maintenance medications (e.g. buprenorphine; antagonists) have been supported. To date the pharmaceutical industry has not been keen to have their brands linked to drug abuse and addictions. Overall informal communications indicate that the pharmaceutical industry viewed drug addiction as a small market and an area that would not provide substantial profit margins for the risk and difficulties involved. However latterly some of the larger companies such as Schering Plough have become involved in expanding buprenorphine treatment and there is interest in the prospect of new medications and new technologies for the treatment of addiction.

Research funding budgets

A major problem for the calculation of national research figures is the lack of specification of research programmes/funds. Budgets are either integrated in total health, social or total science programmes or in programmes for substance use (disorders) in general, without any specification of budgets for illicit drugs. Figures on total expenditures on drug-related research exactly within the analysed time-frame (2001–2006) are not available. Sizes of research budgets for at least one year are listed in Table 4.2 for a total of 11 countries. Most of those countries have a more centralised funding coordination (*Czech Republic, Hungary, Ireland, Latvia, Portugal*). The figures are partly related to research programmes (*Belgium, The Netherlands*) or main funding sources (*Finland, Germany, Poland, Spain*). Because of heterogeneity of data no comparative statement can be made, and no total expenditures for Europe can be calculated.

For the majority of countries, general budget information is not available, mainly because of the distribution of funding across a large number of institutions that makes it difficult to get an exact overview. The countries that are not listed in Table 4.2 have partial information on budgets for single research projects carried out during the analysed time-frame which is available in the country reports. Although exact information the total budget on addiction research is not available for the UK, the UK, country report includes an overview on research budgets on single projects. The budgets vary from less than 10,000 Euro for some regional prevention programmes to a maximum of 12,656,338 Euro for one aetiological study funded by the EC.

Table 4.2. Budgets for drug-related research in selected MS

Country	Funding agency	Year	Budget (€/year)
Belgium	Federal Science Policy Office (for research programme)	2002 -	910,000
Czech Republic	Total public expenditures for drug research (incl. regional budgets)	2007 (no change during last years)	140,000
Finland	STAKES	2006	450,000
	Ministry of Social Affairs and Health	2007	150,000
	Academy of Finland (for research programme)	2007-10 = 5.5 Mio €	1,375,000 ²
Germany ³	Federal Ministry of Education and Research	2006	3,620,000
	Federal Ministry of Health	2006	2,725,000
Hungary	Ministry of Social Affairs and Labour	2004 – 2008 = 75,000 – 188,700 €	135,000
Ireland	National Advisory Committee on Drugs	2003	1,123,775
		2004	867,457
		2005	678,715
		2006	1,269,469
		2007	1,232,481
Latvia	Different agencies	2000-07	14,000
Netherlands	Ministry of Health, Ministry of Justice, ZonMw, NOW (for research programme)	2006-10 = 13 Mio €	2,600,000 ²
Poland	National Bureau of Drug Prevention	2000	34,200
		2001	14,600
		2002	111,600
		2003	69,500
		2004	121,100
		2005	103,400
		2006	74,300
	Ministry of Science and Higher Education (for Institute of Psychiatry and Neurology)	2000	125,600
		2003	135,100
		2004	56,100
Portugal	Instituto Portugues da Droga e da Toxicodependencia	2003	48,000
		2004	37,617
		2005	46,000
		2006	46,000
Spain	Instituto de Salud Carlos III	Average in the last years	2,250,000
	Ministry for Health and Consumer Affairs	Average in the last years	1,500,000
Total	Basis: 11 countries for 2006 or similar year		17,317,669

² It is assumed that the total sum is distributed equally on the corresponding years³ No comprehensive figures available

Coordination of research funding

Based on the information gathered in the country reports, a co-ordination agency for drug-related research funding exists in 9 member states (Table 4.3). The co-ordination function is the responsibility of national public bodies, with mostly research promotion agencies playing the dominant role, and to a minor extent the various ministries. As a rule, the ministries concerned are also responsible for the national drug strategies and their implementation. This is mainly the case in smaller countries with a clear research and funding structure. In these countries most of the funding comes from a single source. However, in most MS with a central funding agency the co-ordination responsibility lays within the sphere of competence of the specific research promotion agencies. In *Belgium, Czech Republic, Slovakia, Sweden* and *Ireland* a co-ordination and funding function is combined.

In the remaining countries there is no central research coordination for drug-related issues. *The Netherlands* have not developed an explicit national policy for addiction research. Therefore, research in this context has partly been delegated to intermediary general research promotion organizations. *Germany* is an example for a country with a very complex funding system, because of its federal structure and shared responsibilities between different federal ministries and state governments. The co-ordination system in the *UK* is again a different one, with defined responsibilities of various governmental departments and with the Home Office taking overall responsibility for delivery.

Drug- or substance-related comprehensive research funding programmes

Specific national research programmes with a defined research concept were identified in five countries: Belgium, Finland, Germany, the Netherlands and the UK. The duration of the programmes vary between four (Finland 2007-2010, UK 2005-2008) and eight years (Germany 2001-2008). The Belgian programme has no defined duration; it started in 2002 and is still continuing. The budgets range from 910,000 € to 20.4 Mio € (Table 4.4). In general there is a clear tendency to design funding programmes for the whole field of psychotropic substances, and not specifically for illicit drugs.

Table 4.3 Coordination agencies for research funding in MS

Country	Funding coordination bodies	No official coordination body
Austria		x
Belgium	Federal Science Policy Office	
Bulgaria	n.a.	n.a.
Cyprus		x
Czech Republic	Internal Grant Agency of the Ministry of Health	
Denmark	Ministry of Health Ministry of Social Welfare	
Estonia		x
Finland		x
France		x
Germany	[partly: Interministerial Working Group]	x
Greece		x
Hungary	Ministry of Social Affairs and Labour	
Ireland	Health Research Board National Advisory Committee on Drugs	
Italy		x
Latvia		x
Lithuania	n.a.	n.a.
Luxembourg		x
Malta	Ministry of Health, Elderly and Community Care	
Netherlands		x
Poland		x
Portugal		x
Romania	National Anti-drug Agency	
Slovakia	Slovak Research and Development Agency	n.a.
Slovenia	n.a.	
Spain		x
Sweden	Swedish Research Council (basic research) Swedish Council for Working Life and Social Research (applied research)	
United Kingdom		x

Table 4.4: Comprehensive research funding programmes in MS (illicit drugs or psychotropic substances in general)

	Name of programme	Topics	Duration	Funding agency	Budget/€ for total period
Belgium	Research programme in support of the federal drugs policy document	Evaluation of substitution treatment Patient – treatment matching Evaluation of the treatment for "dual diagnosis patients" Effects of long term cannabis use Local drugs nuisance and the policy pursued (ongoing)	2002 – [8]	Federal Science Policy Office	910,000
Finland	ADDIKTIO Substance use and Addiction	Drug-use and harms and drug policy Research into treatments and recovery processes Research into addiction behaviour and addiction mechanisms	2007 - 10	Academy of Finland	5.5 m
Germany	Addiction Research Networks	Aetiology, epidemiology, treatment, health economics; transfer of research results into practice	2001 - 08	Federal Ministry of Education and Research	20.4 m
Netherlands	Risk Behaviour and Dependency	Aetiology and course (Identification of key factors that influence the onset, course and chronicity of substance dependency (cocaine, cannabis and polydrug-use)	2006 - 10	Ministry of Health, Welfare and Sport Ministry of Justice ZonMw Netherlands Organization for Scientific Research (NWO)	13 m
United Kingdom	Routes	Research on treatment service system (evidence to underpin the development and delivery of effective services and interventions in the field of drug misuse)	2005 - 08	Department of Health	1.6 m

Prioritisation of contents for funding

Prioritisation of funding programmes for illicit drugs/all substances is mainly shaped by the national or federal funding agencies, sometimes in cooperation with members of the scientific community:

- The recently launched research programme on substance use and addiction in *Finland* was developed with the input from researchers in a bottom-up approach.
- In *France*, prioritisation only takes place in the framework of the MILDT (Interministerial mission for the fight against drugs and drug addiction), which is responsible to “translate” policy needs into research needs; it was reported to have limited impact on scientific research.
- In *Germany*, the two major funding agencies show different ways of prioritisation of drug addiction funding. The drug-related part of the Health Research Programme of the Federal Ministry for Education and Research was developed in close cooperation with representatives of the scientific community and scientific societies. The process of selection of research topics within the Federal Ministry of Health is channelled by the Ministry itself due to its particular work programme.
- In *Spain*, models of prioritisation vary for the different available programmes. The programme of the Ministry of Science is strongly investigated driven, whereas the National Plan on Drugs has more defined programme-based funding.
- In the *UK*, the Medical Research Council (MRC) has recently launched an initial funding call for proposals that concerns pilot/proof-of-principle funding and seeks to make better use of the existing research “infrastructure” (defined to include surveys, databases, cohorts, clinical networks, genotyping and brain imaging facilities) and create collaborative clusters of research centres.

Evaluation of the national research funding situation by interview partners

The statements of the interviewees on the national research funding situation reflect the quite different situations within the MS. All in all the interviewees from the EU-15 MS have a more positive opinion on the funding situation in their countries, whereas the interviewees from the newer Central and Eastern European MS refer to a shortage of funding.

- The *Czech and Polish* research and funding systems are seen as lacking in research funding and lacking in any priority being given to the need for addiction research.
- By contrast, *Finland* is considered rather optimal given the opportunity of research at institutional level (STAKES) and external funding related to the specific substance related research programme of the Academy of Finland.
- The *German* interview partners refer to a well-funded research programme, which took place from 2001 to 2008, by the Federal Ministry of Education and Research which has promoted the progress in basic and clinical research. However, this programme has now been terminated without any future funding options for drug-related research.
- The *Spanish* key interview partner considers the Spanish funding system appropriate based on a competitive application procedure that has become less bureaucratic in the last years. There is an excellent system for the evaluation of research groups, especially based on publication record. Again the problem is a lack of an adequate amount of funding (given high evaluation criteria and related work for applications) and a lack of specific funding for research on illicit drugs.

4.2.4 Research cooperation

Research cooperation at European level takes place at many levels with much informal cooperation between researchers in different MS and also by agreement between different MS. In addition there are some larger scale projects including the HBSC and ESPAD projects. As described in chapter 3.2.1, these studies are based on the participation of a large number of countries in order to examine similarities and differences in a cross-national perspective.

The key formal process to improve cooperation in Europe is through the framework programme of EC's DG RTD and there has been key investment in large scale scientific projects with the aim of promoting a high quality European Research Area (ERA). Projects are underway to support research infrastructure that enables technical support for communication. Other projects assist infrastructure through supporting movement of researchers and also the support of the training of researchers with the Marie Curie Fellowships. The Marie Curie Fellowships have been reported as a very successful and popular component of the Framework Programme. In particular the "People" specific programme has attracted a wide range of applications and facilitated high level interaction and training and enabled younger researchers to significantly further their training. The current actions are focussed towards encouraging younger researchers as well as lifelong learning and are a potential important area of activity for promoting and developing drugs researchers through active participation in these programmes by individuals and organizations involved in drugs research.

Apart from the above mentioned structures, cooperation is also developed to a greater or lesser extent in the framework of multinational projects funded and/or supported by WHO, UNODC and the Pompidou Group. The vast majority of the resources is directed towards facilitating communication and cooperation and does not fund actual research. It is evident that participation in such projects promotes the spirit of European collaboration. All in all, there are countries which seem to be more active in participating in joined-up international research projects (such as France, Germany, the Netherlands, Spain and the UK) and other who report either limited participation in such ventures (e.g., Denmark, Latvia) or limited project leadership at joined projects (Poland).

European research societies

There are only a few research societies with the "structural" aim of bringing together research scientists and groups to exchange research findings and fostering cooperation in research projects in the field of substance use at a supra-national level. In line with this, they are active in locating drug researchers in the new MS, in order to expand their network of scientists working in the field. All these societies are very small informal groupings and some are linked to larger organizations with an interest in research and policy: the European Society for Social Drug Research (ESSD); the European Association of Substance Abuse Research (EASAR); the European Association of Addiction Therapy (EAAT); the European College of Neuropharmacology (ECNP) and the Association of European Psychiatry (EPA) with a specific "Section for Alcoholism and Drug Addiction"; the International Society for the Study of Drug Policy (ISSDP); the Open Society; Europad. The European Science Foundation (ESF) has also a potential role in facilitating research networking. The ESF has just completed a round of applications for Research Networking Proposals and will develop new calls in the next two years. They support the Research Networking Programmes including the European Children Cohorts Network.

The informal and scientific society groups that exist mainly organise annual or regular meetings in which researchers and practitioners interact and out of such meetings informal collaboration

project may evolve. The ECNP is an example of a consortium with links to the pharmaceutical industry and the main generic stream for new pharmacological research; there is an addiction sub group within ENCP. These groups main potential is their capacity to create working links between researchers in different countries in order to develop future collaborative networks. Many of the scientists are involved in generic scientific networks related to their specific discipline such as neuroscience, molecular genetics, epidemiology rather than through the subject of addictions.

There is the possibility of building better links across such networks.

4.3 Research structures in the European Commission

The tasks and general funding opportunities at EC level are described in section 4.3.1, and the specific participation and share of drug-related topics in section 4.3.2.

4.3.1 Research capacity and infrastructure: Funding programmes of European Commission

DG Research, Technology and Development (DG RTD)

DG RTD provides the major research funding programmes and instruments (the Framework Programmes). Since their launch in 1984, these programmes have played a lead role in multidisciplinary research and co-operative activities in Europe and beyond. Through the successive programmes the scale of drug-related projects has increased with some moderate large budget projects in the 6th Framework. 7th Framework Programme (FP7) continues that task, and is both larger and more comprehensive than earlier programmes. Running from 2007 to 2013, the programme has a budget of 53.2 billion Euro over its seven-year lifespan, the largest funding allocation yet for such programmes. This is a very impressive and highly structured basis for scientific research funding with the EU. The Community Information and Research Development Information Service (CORDIS) website provides a comprehensive description of the full range of activities (www.cordis.europa.eu)

The FP7 is also the main actual source of funding for drug-related research at the cross national EU level. It bundles all research-related EU initiatives together under a common roof and plays an important role in reaching the goals of growth, competitiveness and employment; along with a new Competitiveness and Innovation Framework Programme (CIP), education and training programmes, and structural and cohesion funds for regional convergence and competitiveness. It is also a key pillar for ERA. The broad objectives have been grouped into four categories: "Cooperation", "Ideas", "People" and "Capacities". For each type of objective, there is a specific programme corresponding to the main areas of EU research policy. All specific programmes work together to promote and encourage the creation of European poles of (scientific) excellence. The "Ideas" programme has the broad aim to foster the next generation of high quality researchers in Europe and through the European Research Council aims to develop the leaders in the field of research. Under the ERA-NET scheme, national and regional authorities from different MS identify research programmes they wish to coordinate or open up mutually. The participants in these actions are therefore programme 'owners' (typically ministries or regional authorities defining research programmes) or programme 'managers' (such as research councils or other research funding agencies managing research programmes).

In the "Health" field there are calls for research proposals on brain and brain related diseases, on translational work on major infectious diseases with specific reference to HIV and AIDS, and research on quality, efficiency and solidarity of health care systems that could apply to drug addiction treatment systems. There is also a call for work on enhanced health promotion and

disease prevention systems which includes work on environmental prevention of adolescent substance abuse. In the other key area of socio-economic sciences and the humanities there are calls for work on societal trends and lifestyles including a platform on research on families and family policies. In the *Security* arena the FP7 has sections on Borders, and on the Economics, Security and Society. The *Foresight* research activities aim to inspire public debate, to foster shared understanding and self-organization among stakeholders in the security domains.

DG Enterprise and Industry (DG ENTR) – Security Research

The objective of the Security theme is to develop the technologies and knowledge for building capabilities needed to ensure the security of citizens from threats such as acts of terrorism and (organised) crime. The theme is organised around 4 missions and 3 horizontal activities. The first mission - security of the Citizens - includes the fight against organised crime (e.g. drug trafficking or money laundering). The third mission is dedicated to Border Security. Additionally, horizontal activities include support to networking and aim to inspire public debate, to foster shared understanding and self-organization among stakeholders in the security domains.

DG Justice, Freedom and Security (DG JLS)

DG JLS takes the lead on drugs issues for the EU and is responsible for developing the EU drugs action plan in collaboration with other key EU agencies. It does not itself have a research remit but places an important emphasis on supporting and facilitating the development of a greater level of drugs research that would support and enhance the key priorities of the EU drugs action plan.

It is specifically DG JLS that is responsible for anti drugs policy within the context of the development of strategies and policies in the field of drugs. The Drugs Coordination Unit is responsible for the co-ordination of the activities of the Commission relating to following activities: health, education, prevention, research, training, precursors control, money laundering, supply reduction and international co-operation. It is responsible for coordinating the implementation by the Commission's services of the European Union action plans on drugs for the years 2005-2008 and 2009-2012 and also coordinates the relations of the Commission's services with the EMCDDA.

Funding opportunities build on the EU's Drugs Strategy and Action plans, the ultimate aim of which is to significantly reduce the social harm and health damage caused by the use of, and trade in illicit drugs. The general objectives of this programme are:

- to prevent and reduce drug-use, dependence and drug-related harms;
- to contribute to the improvement of information on the effects of drug-use (expansion of the knowledge base, the exchange of information and the identification and dissemination of good practice);
- to support the implementation of the EU drugs strategy.

DG Health and Consumers (SANCO)

Public authorities in the EU MS have responsibility over the health of European citizens. The EU plays an additional role as EU actions complement the MS national health policies to bring European added value. An important component of the EU health strategy is the public health programme 2008-2013 which has adopted an overall health determinant approach rather than a disease specific approach to its future programme and has encouraged overall integration of

research within the Framework Programme. DG Sanco community health programme developed a series of drug specific projects with a particular focus on community, treatment and public health aspects of drugs. These projects were of modest size but enabled a degree of networking and co-ordination and were viewed as providing valuable opportunities to the development of transnational projects.

Links of Framework Programme to MS research strategies

In each country there is a specified link person at governmental level to assist researchers in MS to engage with the EC 7th RTD Framework Programme. These National Contact Points have the function of encouraging and supporting researchers to participate in the framework application procedures. They are not subject specific but are an important first point of contact for researchers with the overall process. Future work might assist addiction researchers in becoming more familiar with such local contacts.

The EU wide process would be significantly assisted if the MS national research strategies had a well coordinated approach and had clear priorities set. There is substantial room for improvement in national drug research strategies.

4.3.2 Funding of drug-related research

Drug-related research funding in past EC RTD Framework Programmes

For illustration, some larger projects funded in FP5 and 6, are described as follows:

- In the EC 6th RTD Framework Programme in the 2003-2005 “Major Disease Research Projects”, an integrated project lasting 60 months with an EC contribution of over 8 m Euro was funded on the *genomics, mechanisms and treatment of addiction*. This was a public private partnership project aimed at exploring the relationship of genetic vulnerability exploring the role of genes in complex diseases. The countries involved were the UK, France, Spain, Germany, Poland, Hungary and Iceland¹⁵.
- In the 2005-2006 Major Diseases Research Projects, a further neurobiological project titled *Imagen* was supported, with a 60 month timeframe and a contribution of 10 million €. This is a multicentre functional and structural genetic-neuroimaging study of a cohort of 2000 adolescents who will be followed for 4 years. The countries involved are Germany, France, the UK, Ireland and Norway with 17 research centres collaborating on this project¹⁶.
- Two projects within the Crime Prevention Initiative were part of the European Form for public safety and looked at aspects of drugs and crime, in an overall perspective on crime and deviance. This work appears to be a process of consultation and discussion and in the reports reviewed the drugs aspect of the work was limited¹⁷.
- In the section on “Scientific Support for Policies” there was a stream of activity on the costs of crime which included a component on drugs and prisons. This appears to be a small sized project and not to be drug specific.
- The specific programme for TRANSPORT forms part of the first activity of the 4th Framework Programme within the sub area "Transport", and builds on the experience and achievements of the first phase of the EURET programme under the 2nd Framework Programme. Two major projects related to drugs and driving have been supported through this programme, ROSITA and DRUID (Driving Under the Influence of Alcohol or other Drugs). This is a multicentre collaborative project with some specific research aspects, covering drugs.

¹⁵ www.surrey.ac.uk/genaddict

¹⁶ www.imagen-europe.com

¹⁷ www.fesu.org/index.php?id=693

Drug-related research funding within EC 7th RTD Framework Programme

There is a major amount of framework programme funding by the EC 7th RTD Framework Programme but only a very limited amount of activity in the drug field. The process requires a level of energy and activism at the national and the European level by networks of researchers. There have been applications from researchers for projects in FP7 but to date there are no drug specific projects.

4.3.3 Participation of MS research groups in EU funded projects

The range of transnational projects varies and some have substantial research components, while others have very limited research. If one looks at the overall expenditure on projects during the period of interest approximately 2001 to 2007, it is estimated that overall expenditure on drug-related transnational projects was 58 million €, with the largest expenditure from DG RTD 28 million, additionally 19.3 million within the TRANSPORT programme of DG RTD, DG SANCO 5.6 million, and DG JLS 5 million.

Within these projects there were six main countries participating with drug-related projects, as measured by the actual number of projects: Germany, Netherlands, Spain, the UK, France, but also some involvement in Greece, Belgium, Italy, Austria, Sweden, Denmark, Latvia and Romania. The limited number of projects running between 2000 and 2008 does not make it possible to undertake a thematic analysis as we have done for the MS. It is not possible at this stage to determine the relative overall quality and impact of the individual projects.

The spread of themes in the earlier studies was around cultural, epidemiology and aspects of treatment with some basic science projects, and more recently the major projects in research have been related to molecular genetics and neuroscience, according to trends in publication topics (see Table 3.5). The trend in theme and topic would appear to be influenced by the range and quality of applications rather than any specific decision in any particular DG to change direction. Thus, it would appear that much of what appears within research programmes is driven by the level and the quality of applications from researchers in different MS.

Many of the major research centres at the MS level did not appear to have any links or activities with the EU research programmes and there appears to be a poor overall linkage between EU funding programmes and some of the more productive researchers and the cross national research activity. The most substantial projects undertaken have been on genomics. The EC 7th RTD Framework Programme has a range of areas where it is possible to undertake drug-related research. To the best of our knowledge apart from the genomics networks and transport research network (DRUID) there are no currently identified strong networks in a position to strongly bid for this work.

4.3.4 Evaluation of EU funding situation by interview partners

Interviewees on EU research included some researchers and project managers of some of the larger current initiatives, but also some researchers who had limited experience of the process of applying for EU applications. Their responses reflected a variety of experience and offer some overall balance and weight to the comments.

Relevance of EU funding sources

- The relevance of EU funding sources in drug-related research is valued differently depending on the particular national research funding situation and probably the amount of the drug problem in the relevant country.
- In countries such as Finland which have well established national funding and a relative small drug problem, the need for EU funded research is not seen. In contrast, the need for EU funding is accentuated mainly in the Central and Eastern European MS as Poland or the Czech Republic. There is a strong support from the government for applications at EU level.
- An increasing relevance of EU funding is also assumed by the German governmental key informants, whereas the key informants from the scientific community estimate a minor relevance of EU funding for German drug-related research.
- The Dutch informants emphasize the possibility of efficient use of scarce research resources when a topic is subject to high-quality study in more than one cultural and economic context. They lay stress on the positive effect of co-operations with EU partners in joint projects, which could generate a valuable learning about programme effectiveness, delivering questions and avoiding of duplication of efforts.
- The UK informants reported on the need for MS cooperation at an early stage to assist in the development of priorities and to enable constructive feedback to the EU commission on future research priorities based on multimember state consensus and clarity of scientific opportunity.

Difficulties related to EU funding

Some of the interviewees expressed critical points and made recommendations for improvement in the context of EU funding programme announcements, funding contents, application processes and project management:

- In general, there did not appear to be a lot of knowledge and utilisation of the CORDIS database. However, some researchers stated that they had looked closely at CORDIS with reference to the FP7 and noted a lack of emphasis on drug-related research.
- Many of the interview partners found the application procedure too complicated, too bureaucratic, discouraging and demanding extremely high formal requirements from the applicants. Other applicants who had been successful reported that there was a need for partnerships with (commercial) organizations who fully understood the application process.
- Some individual researchers did not wish to work within broader research networks and did not understand that such networks are a critical component of the development process of the Framework Programme. They were doubtful of the coherence and quality of some of the larger networks and felt that much of the networking reflected geographical considerations rather than scientific quality issues.
- When asking about Marie Curie Fellowships only one respondent had applied for such support. There is a case for using information networks to make drug researchers and policy makers more aware of the Marie Curie Fellowships.
- It was also argued that clinical and treatment projects are more difficult to handle and to manage in consortia than basic biomedical research. It would appear that some of the methods in basic science are more directly transferable and usable in different national and cultural settings. As an example, the project CHAMP (funded by DG RTD between 2004 and 2006) was commissioned to improve the standardisation of laboratories in different countries. This was regarded to have been a successful project that promoted international research collaboration on the quality and standards for the measurement of amphetamine type drugs.

4.4 Research structures of other organizations in Europe

Over the past two decades a number of international organizations have played an important role in the development of an international coherence to the drug field in Europe. However, very little of this activity involves research and in many ways it is not the role of these organizations to undertake research within individual countries or across different regions. But they have a potentially important role in assisting communication and networking.

European Monitoring Centre for Drugs and Drug Addiction (EMCDDA)

In 1995 the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) was established with a specific monitoring and observation function. It has assisted individual MS to develop and share data on all kind of drug-related issues (e.g. epidemiological information, patterns of drug use, drug-related social and health problems or service utilisation). The relationship between EMCDDA and MS is two-way and the Centre supports information exchange, monitoring and cooperation in the field of drugs at EU level and towards Member States. EMCDDA does not assist increase in research capacity, skills and infrastructure. EMCDDA produces scientific information that can be used in research activities on drugs and fosters information exchange between scientific experts.

Pompidou Group

The Pompidou Group has a long tradition in the field of research issues and established an early research network in epidemiology that initiated such of the linked epidemiological research in Europe. Currently the Pompidou Group promotes the importance of research at all levels but does not have the funding or remit to support any major projects. The Pompidou Group's new mandate to link policy, practice and science is at the core of the activities carried out by the research platform which supersedes the group of experts in epidemiology active between 1982 and 2004. There has been a change of function from developing data collection and monitoring methodologies to assessing the impact of research on policy. The research platform has developed a database of research activity and reports over 300 registrations since 2007. This important activity provides a snapshot of research activity however the overall participation in the research registry does not currently provide a comprehensive picture of current research activity in Europe.

UNODC

UNODC has a global remit. Europe is, of course, an important component of that remit. UNODC is supported by EMCDDA to develop indicators that are useful for national monitoring purposes in 3rd countries. UNODC is not a research organization, but there are some small research projects that directly relate to some aspects of UN drug policy. Nevertheless its prospective input to EU research is very limited. The major focus for UNDOC is on the supply reduction end of policy research which can include approaches and methods for mapping cultivation, and other laboratory and related research, although available funding is limited. Expansion in EU policy research on supply reduction could be of considerable assistance to the overall global drug strategy.

WHO Europe

WHO Europe is the regional office for WHO Geneva and has modest resources to cover a large area. Its focus and priority most recently has been around the problems faced by countries in Eastern Europe with a particular focus on HIV prevention in injecting drug users. Also it has conducted important work on health in prisons in Europe, again with a key focus on injecting

drug use and HIV. Altogether its major focus is the promotion of public health strategies to enhance population well being, and not the funding of research but it has been involved in aspects of communication and coordination on some topics.

5 ASSESSMENT OF DRUG-RELATED RESEARCH IN SELECTED THIRD COUNTRIES

This chapter presents a brief description and comparison of drug-related research activities and research structures in three international comparison countries with a profound history and focus on drug-related research: Australia, Canada and the USA (objective 4). Within the two areas of analysis the same subtopics are covered as for the research situation in MS and at EU level, but in a more comprehensive and summarised form.

5.1 Procedure

We commissioned structured expert reports on the situation in each of these countries:

- 1) Professor Alison Ritter, National Drug and Alcohol Research Centre
Key policy researcher in Australia, has been involved in the research field for over 20 years.
- 2) Professor Benedikt Fisher, Faculty of Medical Science, University of Victoria, Canada
Director of the Illicit Drugs, Public Health and Policy Unit, and with a longstanding work in the addiction field.
- 3) Dr. Zili Sloboda, Sc.D., Senior Research Associate, Institute for Health and Social Policy, University of Akron, Ohio, USA
Former Director of NIDA's Epidemiological and Prevention Research Division

5.2 Research activities

5.2.1 Research topics

The Australian government has an integrated approach to tobacco, alcohol and other drugs and many of the key priorities for research match the national drug policy priorities. A review commissioned by Australia's generic health and medical research council in 1998¹⁸ concluded that the majority of Australian illicit drug research at that time was focused on *epidemiology* and *interventions* (Hando et al., 1998). During 2000-2007 over 650 research projects were commissioned (approximately 100 per annum). The vast majority was in the field of interventions and epidemiology. There was some research in the field of criminal justice policy and supply control. Based on information provided in the Australian country report¹⁹, approximately 40% of drug-related research is in the interventions arena in the broadest sense (including evaluation research and clinical practice research) and less than one third falls under the heading of *epidemiology* (28%). The overall assessment of the Australian situation is that for a relatively small country there was a substantial amount of high quality research and this has major national and international impact.

The Canadian Government developments have interesting parallels with the Australian government in that the period of 2000 onwards has been a period of new investment in health research including addictions research. It is harder in Canada to separate out specifically how much research activity has gone specifically to addictions research because funding is allocated generically. But as part of the overall research initiative some key infrastructure has been developed with seven professorial chairs being supported. A major focus in the health research

¹⁸ In the early 1990s, within the opiate research area 12% of Australian publications were from the treatment and prevention area, while 64% were descriptive research. At the same time Australian researchers recommended to direct 20% of funds available for opiate research towards primary prevention; and between 10 to 12% each between laboratory research, descriptive research, treatment and dissemination studies (Walsh et al., 1998).

¹⁹ Based on the titles of all research projects documented in Australia in the illicit drug area from 2000 to 2007. Data on research projects were taken from the NHMRC published figures, ARC reports, individual institution websites and annual reports, and the Alcohol and Other Drugs Council of Australia's Register of Drug and Alcohol Research (RADAR)

initiative has been on bio-medical research. A proposal to develop a dedicated National Structure similar to NIDA was not supported by the Federal Government despite a strong bid by key players in the field to promote such a centre. The key areas supported from 2000 onwards were epidemiology (14 funded applications), interventions (23 applications) and policy (24 applications).

In the US, the key research institution supporting addictions type research is the National Institutes of Health's National Institute on Drug Abuse (NIDA), and there has been long term strategic support in financing both NIDA and its research output. The US has substantially more research projects and publications than either of the two other countries (and by comparison with any other single country) and that by comparable size the EU and MS would be the second in size of activities on addictions research.

5.2.2 Research trends

The trend in all three countries was for increasing amount of activity over time and in both Canada and the US an increasing emphasis on neuroscience, and molecular genetics of addictions, reflecting the overall growth in research on brain science and micro biological aspects of health research. The trend is also for increasing investment on the need to understand the basic mechanisms underlying addiction, with the longer term aim of improving strategies for prevention interventions. In all three countries there is a major emphasis on improving links between researchers and policy makers, and improving the impact of research on policy and practice by emphasizing technology transfer.

5.2.3 Integration of drug-related research in broader research areas

In all three countries there are efforts to enhance the integrated approach to generic and separate drug-related research funding. However, there is no example that stands out as being particularly successful or helpful as a model for future programme development in the EU. Given the modest overall size of activities in Australia, there appears to be some significant activity looking at issues such as drug supply and special populations, and clearly there has been substantial political priority to focus on these areas. In Canada, there is also a focus on special populations as an important area of social policy but this does not appear to be reflected in research priorities. In the US, the different institutions such as the National Institutes for Health and the Criminal Justice Bureau (responsible for research and delivery aspects of prison and corrections) would appear to have the capacity but limited processes for setting joint research priorities.

5.3 Research structures

5.3.1 Research capacity and infrastructure

Australia, Canada and the US have adopted different structural approaches which reflect their political and administrative history and approach. All have used a mixture of developing some core activity and funding, and mixing this with a competitive application programme with an investigator-driven application process. The overall spend in the different settings varies considerably, but the implementation of a research strategy shaped around the overall national drug strategy, has provided structural coherence and research impetus in all settings.

Australia

The Australian system is a federal system and funding and support can occur at either a state or a federal level. The key strategic developments have occurred at federal level through the National Health and Medical Research Council (NHMRC). The major event in the history of drug-related research in Australia was the creation of the first national strategy aimed at drug-use - the National Campaign against Drug Abuse (NCADA) which was adopted in 1985. Prior to 1985, Australian drug research was neither co-ordinated nor centralised. Research occurred in a number of universities as part of medical, psychology and criminology faculties as well as in some hospitals. The NCADA included the creation of two national drug research centres²⁰ in 1986 and a third centre²¹ was opened in Adelaide 1991.

A National Drug Research Coordinating Committee was established around 1999 and worked for some years on various coordination functions, but has subsequently been dissolved. A specific drug abuse research funding body, the Research into Drug Abuse Program (RIDAP) which was established in the late 1980s, has also ceased operations.

They commissioned a review of Australian illicit drugs research. This review of illicit drug research in Australia (Hando et al., 1998) documented research related to prevalence and patterns of use, risk factors, related harms, and health interventions, finding that the majority of research being conducted at the time of the review was focused on interventions and epidemiology, with little research on risk factors. In 2004, the Alcohol and other Drugs Council of Australia noted the strong international reputation of Australian drug research and noted that the establishment of the three national centres referred to above has "created a strategic and cooperative partnership between the drug research community, decision makers and service delivery personnel". They identified areas for further consideration including research quality, the use of evidence in decision making, the balance between commissioned and investigator-driven research, ethics approvals and various other aspects to Australian drug research.

Canada

The situation in Canada over the past decade has dramatically improved with the establishment of the Canadian Institutes of Health Research (CIHR) as Canada's primary health research funding agency, along with several other relevant federal entities for direct and indirect health research support and substantially elevated levels of funding since 2000. The Canadian system of health research funding relies primarily on investigator-driven proposals and projects (i.e. is subject to extrinsic or strategic direction only to a limited degree and reflects the capacities, interests and priorities of its active researchers). The amount of research funds available, capacity development efforts and publications output in the field of addiction research have substantially increased since 2000. The area of illicit drugs is handicapped by the fact that within the CIHR system²², the topic of "addiction" is subsumed within the Institute of Neuroscience, Mental Health and Addictions (INMHA), where it plays a somewhat subordinated role and is limited in terms of strategic development or support opportunities. Traditionally, the bulk of research funding for substance use research – as is the case for health research funded by CIHR overall – has been committed to the areas of bio-behavioural ("basic") science research. However, in recent years, the relative amount of funding devoted to other areas (e.g. social science/population health) of research has grown. Overall, the addiction research landscape in

²⁰ The National Drug and Alcohol Research Centre (NDARC) in Sydney and the National Drug Research Institute (NDRI) (previously called National Centre for the Prevention of Drug Abuse) in Perth.

²¹ The National Centre for Education and Training in Addiction (NCETA), which received funding from the Federal Government, the South Australian Government, and Flinders University.

²² The CIHR was created around 13 "virtual institutes" representing different health research topics. The institutes have a limited amount of funds for targeted strategic research initiatives within areas of their topical mandate.

Canada is limited in the coordination of content between different funding levels and institutions and somewhat fragmented in its activities.

The principal objectives of CIHR were to facilitate scientific excellence in health research and capacity development and to provide a substantially higher and sustained funding level. It also aimed to create a support framework of health research reaching beyond the boundaries of mainly biomedical research, partly in recognition of the importance of the social determinants of health and population health principles in the health status of Canadians, as well as incorporating clinical and health systems research as key domains.

United States

In 1992 the US Alcohol, Drug Abuse and Mental Health Administration (ADAMHA) was reorganised to separate the services supported operations from those that represented research. The newly created service organization became the Substance Abuse and Mental Health Services Administration (SAMHSA)²³. The research organizations, the National Institute on Drug Abuse (NIDA), the National Institute on Alcohol Abuse and Alcoholism (NIAAA), and the National Institute of Mental Health (NIMH) were moved under the large umbrella of the National Institutes of Health (NIH). Although NIDA always had both an intramural and an extramural research programme, by joining the NIH it was able to draw on a more extensive granting experience and support. Although there is no single body that builds the nation's infrastructure to conduct and fund drug abuse research, NIDA remains the most influential in the drugs field. Every five years NIDA in partnership with a large number of constituent groups develops a strategic plan for the next half decade. At the late 1990s, the then Director of NIDA supported the development of a five-year plan (NIDA, 2004)²⁴, the new strategic plan is in draft form awaiting comments.

The centres that are funded by NIDA are university-based and conduct multidisciplinary research in key areas such as prevention, treatment, epidemiology, and neuroscience and are formally structured for training both within the centre through post-doctoral work and through course offerings such as summer institutes, seminars, or workshop series.

The USA has a more centralised institutional approach to funding and has the highest level of spending and a broad range of topics. However international commentators have noted that there is a poor level of translation of research to policy and practice and a marked shortfall in the joining up of research to the translation from bench to clinical setting.

5.3.2 Research funding budgets

Australia

Funding sources for Australian illicit drug research include government (commissioned) research, generic competitive research funding bodies such as the NHMRC, and philanthropy. The two national drug research centres, National Drug and Alcohol Research Centre (NDARC) and the National Drug Research Institute (NDRI) are both significant players in Australian illicit drug research. The Commonwealth government provides annual core funds to both centres, which amounted to a total of AUS \$3,357,000 (approx. 2,014,200 €) in 2006.

The estimate of the illicit drug research costs in Australia for the year 2006 is AUS \$16.8 million (10.1 million €). This represents a per capita spending of \$0.81 cents (0.49 €) per annum per

²³ SAMSHA consists of three Centers: the Center for Substance Abuse Prevention (CSAP), the Center for Substance Abuse Treatment (CSAT), and the Center for Mental Health Services (CMHS).

²⁴ <http://www.drugabuse.gov/PDF/StratPlan.pdf>.

Australian. Relative to overall Australian investment in health research it is a very small amount. The NHMRC annual fund is \$539 million (323 million €), of which \$9.9 million (6 million €) is invested in illicit drugs research (1.8% of the total competitive health research investment).

Canada

The CIHR is the centrepiece of the domestic public funding for health – and thus illicit drug use related research in Canada. CIHR has seen a substantial increase in its budget between its creation in 2000 and its most recent budget (2008), although budget increases have levelled off since 2005, partly determined by a new government in office since 2006. Overall, these developments have led to an unprecedented net increase in research operations and capacity development funding for health and addictions research in Canada since 2000.

In the mid- to the late 1990s, the state of funding for health research in Canada had been deteriorating considerably. The key health research funding agency at the time, the federal Medical Research Council (MRC), had to take substantial budget reductions in the wake of general public expenditure cuts. The MRC's budget was reduced by 13% from 1994 to 1998 alone, to a total funding amount of CAN \$237.5 million (168.6 million €) in 1998. This funding amount was recognized as being considerably lower than funding amounts devoted to health research in e.g. Australia or the United Kingdom, and massively lower than that available in the USA (Single et al., 2000). At the time substantially more health research funding came to the support of Canadian health researchers from US sources than the total funding amount available domestically. Furthermore, the MRC's funding support was largely devoted to biomedical research as its "principal forte" (MRC, 1997), and rarely funded research outside of this realm. Federal politicians increasingly recognized this situation as untenable, especially when the federal government managed to balance its annual budget at the turn of the century and had the fiscal opportunity for additional public spending. In this context, the federal government created the CIHR in June 2000 as a pivotally important event in the evolution and state of health research funding in present and future Canada.

United States

The White House Office for National Drug Control Policy (ONDCP) estimated that the range of funding for treatment and prevention research in the field of illicit drugs increased from \$702.4 million (583.0 million €) to \$1,024 million (850.0 million €) between Fiscal Year (FY) 2000 and 2007 (ONDCP, 2008)²⁵. The funding levels for the same period of time provided by NIDA (that include research management and support) range from \$690 million (573 million €) in FY 2000 to \$1,000 million (830 million €) (in FY 2007 (NIDA, 2004; 2008)). Information was available on NIDA's website for the distribution of research funding by category of research for FY 2007. According to this, clinical neuroscience research received \$429.1 million (356.2 million €), epidemiology, services (treatment) and prevention, \$249.6 million (207.0 million €), pharmacotherapies and medical consequences, \$116.6 million (96.8 million €), clinical trials, \$54.9 million (45.6 million €) and intramural research, \$81.8 million (67.9 million €). Research management and support received \$55.8 million (46.3 million €) for salaries and processing of research and research applications (NIDA, 2008). Altogether, these amounts sum up to \$987.8 million (819.9 million €), representing a per capita spending of approximately \$3.3 (2.7 €) per annum per inhabitant.

²⁵ It is not clear how these categories are compiled for information on funding for NIDA's research program is not comparable.

5.3.3 Research coordination priority setting

The different countries take a considerably different approach to research programme and priority setting. In Australia, the different government bodies establish their own list of priorities but the overall approach focuses on epidemiology, evaluating effective interventions, preventing drug abuse, law enforcement research, and research on special population groups. The structures and outputs reflect these priorities. In the USA, government policy is enunciated by the ONDCP which acts independently of NIDA. NIDA has a combination of approaches to priority setting. The focus of extramural research can be determined by NIH program officers or by individual investigators. Institute-initiated research arises when in the course of a periodic review of progress across a number of areas, significant gaps are noted. Programme announcements are used to promote and develop areas of research, so that resource can be invested to develop areas that are regarded as requiring specific prioritization. Within Canada, the process of prioritization is primarily through the process of initiating specific streams of research commissioning that enable topic priorities to be enhanced and these are open to competitive application processes.

Key Lessons from International Experience

The approach taken in both the United States and in Australia has been to develop a longer term strategic development plan to invest in specific support to enable drugs and addictions research to develop. It was recognized that without specific funding support, limited numbers of young scientists would develop their careers in the addictions field. Both countries demonstrate a fairly rapid development based on this approach. The research output from Australia has expanded dramatically in a decade as a result of such an approach. Both countries report that a clear and specific approach to drugs research is necessary to develop the high quality research required.

There has been substantial informal collaboration at the international level between European researchers and US, Canadian and Australian researchers. There has been a formal co-operation between NIDA and the Dutch government on drugs research. There has been informal but important co-operation between European epidemiologists and US epidemiologists around specific technical aspects of drug epidemiology. Future informal and formal international co-operation needs to work to synergise active areas of work in the different settings in order to support the development of new standards of quality and support work on innovative techniques.

6 EVALUATION OF DRUG-RELATED RESEARCH IN EUROPE: STRENGTHS, WEAKNESSES, GAPS AND POSSIBLE OPTIONS FOR IMPROVEMENT

In this chapter, the fifth and sixth objective of the study is addressed – to identify strengths and weaknesses of drug-related research in Europe and to assess options for strengthening this field with the focus on research infrastructure in Europe. This identification is underpinned by the present study's assessment of research activities and structures. A caveat here is that there are no objective criteria for defining the most effective distribution of research resources to support activities and it is far from apparent how to distinguish the strengths and weaknesses of drug-related research activities and infrastructure. MS might differ in allocation priorities because of either different problem situations or different conceptual views on priorities (e.g. demand or supply reduction research). EC-level and MS work may differ for the same reasons. And differences certainly exist within researchers (according to research interests or disciplines) and between researchers and policy makers.

6.1 Procedure

European *research activities* were evaluated according to whether the amount and pattern of current research in the defined research areas (see section 1.3) matches research needs and priorities (1) as derived from our framework scientific model (see section 1.2.3) and (2) as defined in the EU Drugs Strategy 2005-2012 (Council of the European Union, 2004), the EU Drugs Action Plans 2005-2008 (Council of the European Union, 2005) and 2009-2012 (Council of the European Union, 2008) and MS key research policy documents (*policy defined research needs*)²⁶. We also compare European research activities with those summarised for Australia, Canada and the USA.

The material used to summarise strengths and weaknesses comprises the data sources presented in Chapters 3, 4 and 5 as well as EC/European and MS documents on research priority needs, and information provided by key informants from 13 MS, EC and international organizations in Europe.

Because of restraints of time and resources, no substance specific analyses for research projects and publications could be provided, nor were content analyses conducted on the quality and state of research according to the standards of literature reviews. Nevertheless, such analyses have been suggested as options for specific fields of research with a low level of knowledge. Moreover, specific classes of illicit drugs have been identified, where relevant.

6.2 Drug-related research activities

The options for strengthening – if necessary – drug-related research activities are based on the analyses of strengths and weaknesses of the present EU research activities, and are not limited to the structure and topics of current research (funding) priorities at MS and EC level. For suggestions to incorporate these options in the current EC funding structure see section 6.3. For the analyses the defined four broad research areas and specific research fields were followed (see Table 3.3; section 3.1.2).

²⁶ EMCDDA Selected Issue (2008b), country reports and National Reports 2008 have been consulted to collect this information.

6.2.1 Situation in the analyzed research areas and specific research fields

Table 6.1 summarises the results of the quantitative search for research projects and research publications in the EU (based on Tables 3.4-3.6; section 3.2) and the MS research priorities (from the EMCDDA Annual Report 2007 [EMCDDA, 2008a]).

Table 6.1: Distribution of projects, publications and MS research priorities within research areas (based on Tables 3.3 – 3.5)

Research Areas	Research projects ¹⁾		Publications ¹⁾	MS research priorities	
	Total (N=253)	EC-funded ²⁾ (N=34)	Total (N=2.427)	Total (N=57)	
Understanding drug-use ³⁾	Basic	13 %	27 %	53%	8 %
	Epidemiology	50 %	3 %	31 %	30 %
Demand reduction	30 %	44 %	13 %	33 %	
Supply reduction	6 %	27 %	2 %	17 %	
Policy	2 %	0 %	0 %	12 %	

1) Without "others" (projects: n=6; publications: n=601 (reviews))

2) Subgroups of all projects

3) Separated because of broad categories

(1) Understanding drug-use behaviour

This area covers specific research fields which are relevant for all activities including demand and supply reduction and national or European drug policy: (1) *basic research* ("drug mechanisms, effects, methods of detection" and "aetiology and course of drug-use") and (2) *epidemiology*.

Basic research, especially in the field of aetiology, gained increasing international relevance in the recent years, indicated also in the EU by the high share of publications (53%) and the highest increase between 2001/2 and 2005/6 (+36%). European researchers are highly active in this field (e.g. in the analysis of risk and protective factors or in the analyses of onset and course of drug-use). This field is a clear strength in Europe (Table 6.2).

A substantial weakness in aetiological research is the limitation of research to the role of genetic, physiological and psychological/mental risk and protective factors. This model for the framework of the study (see section 1.2.3) covers cultural, economic, legal and social influence factors as well. Their role and relevance especially in relation to empirically better based, health-factor oriented vulnerability-risk-models is understudied. More scientific knowledge would help to identify effective intervention as well as help to prioritise supply reduction activities. Given the prevalence differences between MS it is obvious (but lacks key detailed knowledge) that such environmental factors must have some relevance for the onset and course of drug-use.

Further weaknesses are knowledge and research deficits of the individual risk differences for the initiation and continued use of drugs. Illicit drugs are broadly available but only a share of the population experiment with drugs or continue to regular drug-use. Again more knowledge would shape effective prevention and supply reduction.

Table 6.2: Evaluation of EU drug-related research: (1) Understanding drug-use behaviour

Research fields	Strengths	Weaknesses and gaps	Conclusions	Options
Basic research	<ul style="list-style-type: none"> – Research on aetiology (onset and course) of drug use (genetic, biological and psychological/mental factors) 	<ul style="list-style-type: none"> – Research on relevance of cultural, economic, legal and social factors for onset and course (limited aetiological models) – Individual risk differences – Analytic, longitudinal studies on onset/course of drug use 	<ul style="list-style-type: none"> – Strong research situation; further EC support needed because of added value of European projects 	(1.1) Continued EC funding opportunities with a focus on comprehensive aetiological research models and individual risk differences
Epidemiology	<ul style="list-style-type: none"> – European networks for standardized, cross-sectional (descriptive) population surveys 	<ul style="list-style-type: none"> – Research on specific risk groups, e. g.: iv. and poly drug users; groups in prison, in early stages of drug use – Analytic, longitudinal studies on course and cessation/reduction of drug use 	<ul style="list-style-type: none"> – Good level of descriptive population based cross-sectional research – EC funding opportunities only for European research activities in defined deficit areas needed 	(1.2) EC funding of multinational, analytic epidemiological research (1.3) Continued logistic support of the existing European coordinating study groups in epidemiology

The high share of EU-funded projects in the field of basic research (27 %, Table 6.1) reflects the important role of this field, but MS indicate low interest. This discrepancy might be due to information deficits on the rapidly expanding knowledge but also due to the high costs for this type of research (e. g., laboratory equipment, imaging technology, large-scale longitudinal studies). The low share of projects on basic research is hard to interpret: in addition to underreporting (lack of accessibility of relevant information; see discussion in section 6.2.2) research in this field often is carried out within large (multisite) projects, so that the sheer number does not indicate the amount of activities.

Given on the one side the high costs of research in that field and on the other side the need to study the relevance of cultural, economic, legal and social factors, i.e. the relevance of

differences between MS, this research is definitely an area for the complementary funding role of the EC. Funding support should continue with a focus on the mentioned deficits.

The second pillar of the research area is formed by *epidemiology* which is a strong research field with well established population prevalence studies. According to the analysis of the role of drug-related research in national policies²⁶ and based on the country reports, epidemiological research is also defined as a topic of high political priority in the vast majority of MS²⁷.

In general, research in this field is abundant and the outcome is accessible in all MS. Half of all identified projects and one third of all publications address epidemiological questions. While only one epidemiological project funded by the EC (DG SANCO) could be identified, a considerable amount of epidemiological research is carried out in the framework of larger European networks (e.g. ESPAD, HBSC²⁸). Although not centrally funded, these networks facilitate the conduct of studies within those countries where almost no other drug-related research activities are visible at the international level. In some of the new MS²⁹ research into illicit drugs almost exclusively consists of activities carried out within the framework of these networks. This underlines the important role of (European and other international) co-operation in facilitating drug-related research also on a national level, at least in those countries which do not have a strong tradition in this area, or which do not have the resources to set up comprehensive drug-related research structures.

Analysing the current epidemiological research in more detail, its obvious strengths is in large part limited to cross-sectional, mostly descriptive prevalence studies in the general youth or adult population. Deficits are in the field of specific risk-groups (e.g. socially excluded drug users, poly-drug users, drug users in prisons, children of drug users, groups in early stages of use, intravenous drug users and infectious diseases). Specifically, especially longitudinal epidemiological studies to understand the course of drug use over time, are a second field of deficits (here are clear links to aetiological research, see above).

The low share of EC funded projects (3%, Table 6.1) is not seen as problem as far as (descriptive) population based studies are concerned. The high MS interest in this type of research (30%) is mostly covered by the existing European networks (ESPAD, HBSC). EC activities should concentrate on a supporting role for the European coordinating study groups (e.g., EMCDDA could help to further develop common European guidelines and study manuals and the EC could provide resources – if necessary – to facilitate the implementation of such studies in all MS). But for large scale, longitudinal epidemiological studies a complimentary active funding of research by the EC is suggested.

The MS-specific mapping of research activities revealed that especially the new MS have a major if not exclusive focus on epidemiology. As mentioned above, in several of these countries, conducting epidemiological surveys are the only notable research activities. In addition, it became obvious that the participation of new MS in international studies is mainly limited to epidemiological research in most of the cases and does usually not involve leadership of international consortia (e.g. addressing more complex studies which often require comprehensive resources with regard to technical and coordinative structures). A major reason for the observed sole priority of epidemiology in new MS may be that, except for countries like e.g. the Czech Republic, most new MS did not have (or recognised) severe illicit drug use and addiction problems until the end of the 1990's. Emphasising the mapping of the drug situation seems reasonable in the situation when the drug problem is just emerging. Second, the focus

²⁷ No national drug-related research priorities could be identified in Austria, Denmark and Slovenia.

²⁸ www.espad.org; www.hbsc.org

²⁹ E.g. Bulgaria, Estonia, Hungary, Latvia, Lithuania, Romania or Slovakia

on epidemiology, given limited research funds, and therefore also limited research capacity, is coherent, as the related European networks provide detailed support to carry out these studies.

With regard to the international comparisons, the overall evaluation of the Australian situation³⁰ reached the same conclusion as for Canada and Europe; there would appear “*to be under investment in the basic sciences relative to epidemiology and interventions research*”. In contrast, in the *US*, between 2000 and 2007 the largest proportion of awards was for basic science research while epidemiologic and treatment studies ranked second or third³¹. In line with this, the draft strategic plan³² recently prepared by NIDA considers four research areas³³ with an emphasis on neuroscience and genetics. However, some efforts are made to revise the plan and also consider the inclusion of social and behavioural sciences.

(2) Demand reduction

Studies on *prevention* and *treatment including harm reduction* are covered in this area of intervention research. The overall topic attracts a high priority in several national drug policy documents²⁶ and this is also reflected in several objectives of the 2005-2008 EU Drugs Action Plan³⁴.

Studies account for a considerable share (30%) of drug-related research activities in MS³⁵ and have the first rank among drug-related research projects funded by different Directorates-General of the EC (44%)³⁶. In contrast to the share of research projects, related publications are less prominent (13%). This discrepancy can be taken to indicate either deficits in research quality (scientific publication standards are not met), difficulties to access (specific) journals, or a lack of general publication interest. Either way, this represents a potential waste of resources, as the research outcome does not necessarily contribute to a European knowledge base (Table 6.3).

Addressing *treatment* the high relevance and role of related research is perceived as positive. Because of the wide range of psychological, community-based and pharmacological interventions it is not possible in this study to evaluate the quality of European research in these fields but research deficits are obvious: they cover especially early detection and (brief) interventions outside specialist services, treatment of cocaine, amphetamines and polydrug use (including legal substances), harm-reduction strategies, co-morbidity with mental disorders, research on social influence factors for treatment access, success and relapse. Viewed as of considerable European added value are multisite treatment studies on course, outcome and relapse and on social support factors as well as studies on the costs and effects of different MS treatment service systems. Some further areas of treatment research needs are the moderators and mediators of change, in order to understand change processes, and as a basis for future improvements of prevention and treatment programmes.

The overall picture is somewhat different when addressing the second pillar of demand reduction, namely *prevention research*. Although the majority of MS formulate prevention

³⁰ The ratio between “epidemiology” and “intervention” vs. “basic research” is quite similar between Australia and the EU.

³¹ These grants partly include research addressing licit substances or neighbouring disciplines. According to the distribution of funds available on federal level in the USA, research on clinical and basic neuroscience is the by far predominant research area (slightly less than 45%), followed by epidemiology, services and preventions research (app. 25%) and pharmatherapies and medical consequences which account for slightly more than 10% of the budget (followed by clinical trials: 6%; intramural research: 8%; research management and support: 6%).

³² This plan is based on the “road map” for biomedical research of the National Institute of Health (NIH)

³³ Prevention, treatment, HIV/AIDS and cross-cutting priorities

³⁴ E.g. to ensure the availability of and access to targeted and diversified treatment and rehabilitation programmes (objective 11), provision of reliable information on the drug situation (objective 40) and the promotion of research in the field of drugs (objective 43).

³⁵ Respective projects could be identified in Belgium, the Czech Republic, Denmark, Finland, France, Germany, Ireland, Italy, Luxembourg, the Netherlands, Poland, Slovakia, Spain, Sweden and the UK.

³⁶ Number of eligible projects: DG JLS: 3; DG Sanco: 5 and DG RTD: 7

activities as being a national priority³⁷, this is not reflected in respective research and publication activities. The share of publications on prevention studies is lower than 1%. The empirical support for routinely delivered prevention has obvious deficits in the whole of Europe and research is needed to underpin existing and novel preventive interventions. Topics are at all levels of selective and indicated prevention with specific needs such as: relevant indicators for selective and indicated prevention, the relevance of individual vs. structural prevention, prevention of infection diseases and drug-related deaths. At the European level multisite studies to analyse possible national differences in outcome and intervening factors (moderators) could add significantly to the body of knowledge on interventions. In addition to the need of further research on prevention activities there are clear deficits in the transfer of scientific knowledge into practice. This topic is outside the scope of this study but a focus on implementation and best-practice studies is required (e.g. see the publication about aspects of effective prevention, European Monitoring Centre for Drugs and Drug Addiction, 2008).

Table 6.3: Evaluation of EU drug-related research: (2) Demand reduction

Research fields	Strengths	Weaknesses and gaps	Conclusions	Options
Prevention	<ul style="list-style-type: none"> – High policy priority – Large number of universal prevention programmes 	<ul style="list-style-type: none"> – Hardly any projects and publications – Programmes and outcome of selective and indicated prevention – Balance of individual and structural prevention – Prevention of infectious diseases and drug-related death 	<ul style="list-style-type: none"> – Need for research on selective and indicated prevention (indicators and programmes), on the relevance of individual vs. structural measures and on effects of MS differences on outcome (moderating factors) 	<p>(2.1) Multisite European studies on selective and indicated prevention and on the balance of individual vs. structural measures</p> <p>(2.2) Prevention programmes for defined deficit areas</p>
Treatment including harm reduction	<ul style="list-style-type: none"> – Research on a large variety of treatment interventions 	<ul style="list-style-type: none"> – Early detection and (brief) interventions outside specialist services; treatment of cocaine, amphetamine and poly drug use; outcome of harm reduction; 	<ul style="list-style-type: none"> – Need for support of specific areas: (a) multisite treatment studies, (b) for research on change related factors and (c) research on harm reduction as integrated part 	<p>(2.3) Funding opportunities for the defined deficit areas</p>

³⁷ Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Hungary, Italy, Lithuania, Luxembourg, Poland, Portugal, Slovakia, Spain, Sweden, United Kingdom

Research fields	Strengths	Weaknesses and gaps	Conclusions	Options
		treatment of co-morbidity; social influence factors of change due to formal and informal interventions – European multisite treatment studies – Research on moderator and mediators of formal or informal induced change	of treatment options	

The vast majority of drug-related studies in general and those specifically focusing on interventions are located in the old EU-15 MS. There are possibly several reasons for the biased number and distribution of research activities in MS. First, given the challenges new MS in transition had to face during the last two decades, research into illicit drugs may simply have not been a priority in the majority of new MS³⁸. Consequently, there has been less national funding available. This results in less research output compared to countries which have a long tradition in drug-related intervention research (e.g. Germany, France, the Netherlands, Spain and the UK)³⁹. Moreover, interview results and discussions with colleagues in central and eastern European MS also supported language barriers as a further general cause for the biased distribution of research activities. In several cases, lack of human and monetary resources make it difficult for experts from new EU MS to initiate or even participate in international research activities. Options should be explored to redress this imbalance and target improvements in the research capacity and competences in the new MS. Such improvements, especially for building up research competences and better participation in EC funded projects and European networks need a long-term approach. Existing good experiences in epidemiological networks are an example to be transferred to other research areas (for further discussion see subchapter (5) General remarks below and Table 6.7).

(3) Supply reduction

Supply reduction is one of the two focal dimensions of the EU Drug Strategy (2005-2012). The standard term covers research on *drug supply* (e.g. production, availability, markets, prices, transportation and smuggling, distribution channels) as well as *supply reduction* (interdiction, law enforcement). Accordingly, the EU Drugs Action Plan 2005-2008 seeks to understand the factors related to the supply of drugs in Europe and to effective supply reduction strategies (e.g.

³⁸ This impression has also been confirmed by interview partners from e.g. the Czech Republic or Latvia and became evident also from country reports prepared for this study.

³⁹ Respective statements have been made e.g. by experts from the Czech Republic or Latvia. Obviously, also differences in economic power do play an important role. However, a systematic comparison based on e.g. GDP or population sizes would require very complex considerations to quantify research activities in a comparable way. Respective comparisons have not been possible in the framework of this project.

availability, penalty regulations, social image of drugs, and social support of drug-use or economic aspects).

Given the clearly expressed needs for a better understanding of drug supply and for effective supply reduction, and the need for related research, the actual distribution of research activities appears to be remarkably imbalanced: projects as well as publications in these fields account only for 6% resp. 2% (Table 6.1). Research on drug supply and on the evidence base of supply reduction measures (e.g. access regulations, money laundering, and asset forfeiture) is almost completely lacking⁴⁰. The aim of the EU Drugs Action Plan “to provide a framework for a balanced approach to reducing both supply and demand” (Council of the European Union, 2005) is clearly not reflected in the current share of supply reduction related research⁴¹. Only the EC sets a clearly higher priority, more than a quarter of all eligible drug-related research projects funded by the EC deal with supply reduction activities⁴². This is relatively more than in all MS, complementing MS activities in the drugs field as intended by the EU Drug Strategy 2005-2012 (Table 6.4).

The sheer number of projects and publications alone is not strong proof of research deficits, but an indicator which was supported by national research documents and interview statements. But there are further problems in assessing the state of research in supply reduction. The analyses suggest that supply issues are often “hidden” in research activities conducted under different topics⁴³ or research which has a broader scope than drugs⁴⁴. Relevant activities may be covered by broader legal categories like e.g. “border control measures” or “technical aspects of substance detection”, making it impossible to identify these activities by a systematic search which primarily looks for drug-related activities. In addition, this research might not be published at all or only in specialist, restricted circulation journals for police or customs officers which are not generally accessible⁴⁵. That said, much of this output would probably not meet scientific standards for publication. As a result, the perception of respective research activities may be biased. But without peer-reviewed research publications it remains difficult to assess the quality of research and analyse research needs. There is a need to increase the research funding for supply and supply reduction projects on MS and EC level. Added value on EC level have comparative studies between MS to analyze supply channels and supply procedures as well as the effectiveness and efficacy of different supply reduction measures. To prepare a more detailed funding programme we suggest European conferences with researchers and MS policy makers to more precisely define the status quo of research in this area and future research needs.

Table 6.4: Evaluation of EU drug-related research: (3) Supply reduction

Research fields	Strengths	Weaknesses and gaps	Conclusions	Options
Drug supply	– High policy priority	– Nearly no projects and publications	– High discrepancy between policy needs, scientific knowledge and related	(3.1) To conduct a European conference in order to define concerted research needs and specific questions in that research area.
Interdiction		– Nearly no knowledge on possibly “hidden” research		

⁴⁰ In a way this contradicts the fact that funding provided for supply reduction activities is usually much higher than for demand reduction.

⁴¹ Even if projects funded by the Directorates-General of the EC show a clearly stronger focus on supply aspects as research activities accessible in MS, see also ⁴².

⁴² Number of eligible projects: DG JLS: 5; DG SANCO: 1 and DG RTD: 3

⁴³ E.g. within epidemiological studies which ask for information on availability of drugs and/or places and situations of procurement.

⁴⁴ For instance the Crime Prevention Board in Sweden conducts a lot of research on crimes in general and drug-related crime is only a minor part of this.

⁴⁵ Information coming e.g. from German police authorities confirmed that there is almost a complete lack of noteworthy scientific journals reporting on drug-related research for criminal experts.

Research fields	Strengths	Weaknesses and gaps	Conclusions	Options
		activities (e.g. police, governmental agencies) – Deficits in research methodology and research guidelines	research – Research on supply reduction need greater priority	(3.2) To commission journal reviews on the state of art of research in supply reduction. (3.3) To support European working groups, in order to compile methodological guidelines and best practice concepts for projects in these research areas. (3.4) To coordinate research planning between MS and EC, in order to secure a coordinated improvement of knowledge base in supply reduction. (3.5) To launch a coordinated funding programme within DGs JLS and RTD.

(4) Policy analysis

Policy analysis as a research topic includes *policy research* (e.g., on national or international drug policy related to demand and supply reduction) and *research on legal frameworks* (e.g., impact of drug-related laws and other regulatory practices). 12% of MS consider this area of research as a priority in their strategic drug-related national documents⁴⁶. However, almost no research on the impact and outcome of drug policy was found in Europe and also none of the drug-related research projects funded by the European Commission can be allocated to this research area. The discrepancy between formulated research needs and the research reality is even larger than in the field of supply reduction (Table 6.5).

It can be assumed that in most cases, research on policy issues on MS level is almost exclusively used for national decision-making purposes and does consequently not become accessible from an international perspective. Outcome of respective (research) activities often remains at the level of reports or policy briefings which are not be considered as being scientific and which are not even accessible from a scientific perspective⁴⁷. However, this type of

⁴⁶ According to ²⁶, the Czech Republic, Denmark, Finland, Malta, the Netherlands and the Slovak Republic mentioned research on drug-related policy issues as a priority. Again, underreporting might be an issue of concern: E.g. Czech experts reported several – mainly regional – policy evaluation studies which are not accessible from an international perspective. And even if not identified of a national drug-related research priority, also in France among the calls for tender launched by the MILDT (national authority to coordinate drug-related activities), drug policy analysis have always been among the key priorities.

⁴⁷ On EU level this is nicely illustrated as e.g. also the evaluation report of the EU Drugs Action Plan 2005-2008 does not have the character of a scientific document and will not show up in scientific databases as the evaluation has not been carried out with a scientific but a political purpose. It can be assumed that this systematic “bias” is true for the vast majority of activities evaluating drug policies.

research, from a scientific perspective, should be considered as being highly important to evaluate the effectiveness of policy related measures to face the drug problem. Research in this area is necessary, for example, in order to balance demand vs. supply reduction measures and to study the influence factors and outcome of different MS drug policy concepts and actions. Against this background, it is quite surprising, that research activities primarily addressing policy or legal framework evaluation, are extremely rare in MS⁴⁸ and on EU level.

In conclusion, visible scientific work on supply reduction and policy analysis in Europe is very limited. In contrast to more established research fields, also deficits in research methodologies and scientific guidelines have to be addressed. Options to improve the situation are not easy to derive and there is very limited guidance from the overseas experience. As research deficits in these areas are confounded with deficits in accessibility and visibility of MS-based and mostly nationally oriented research, starting out with a more detailed analysis of the state of research and research needs in these areas could be suggested.

Table 6.5: Evaluation of EU drug-related research: (4) Policy analysis

Research fields	Strengths	Weaknesses and gaps	Conclusions	Options
Policy Legal frameworks		<ul style="list-style-type: none"> – Nearly no projects and publications – No knowledge on possibly “hidden” research activities (e.g. police, governmental agencies) – Deficits in research methodology and research guidelines 	<ul style="list-style-type: none"> – High discrepancy between policy needs, scientific knowledge and related research – Research on policy analyses need greater priority 	<p>(4.1) To conduct a European conference on policy analysis, in order to define concerted research needs and specific questions</p> <p>(4.2) To commission a series of journal reviews on the state of the art of research in policy analysis.</p> <p>(4.3) To support European working groups, in order to compile methodological guidelines and best practice concepts for projects in these research areas.</p> <p>(4.4) To coordinate research planning and between MS and EC, in order to secure a coordinated improvement of knowledge base in policy analysis.</p> <p>(4.5) To launch a coordinated funding programme within DGs JLS, RTD and SANCO.</p>

(5) General remarks

Finally, two topics which are “cross-sectional” and target all four research areas should be mentioned in this evaluation of research activities in the EU: (1) the biased distribution of

⁴⁸ The fact, that even for native English-speaking countries (Ireland, UK) no research outcome in this field becomes visible on international level contradicts the assumption that this result is mainly due to the language barrier.

research activities across MS and (2) the lessons learned from this brief analysis of selected international countries.

The present survey and analyses showed obvious unbalanced representation of MS in the European scientific community. This was more evident in the case of the new MS. Without going in details of specific strengths and weaknesses in each new MS and, bearing also in mind that research activities might be less visible and accessible as in the old MS, additional support is needed to improve the participation in European research projects and in the European scientific community. The under-utilisation of EC funding instruments for drug-related research is discussed in the section on “research funding”.

The study further revealed that the overall pattern of *drug-related research in Australia, Canada and USA*, compared to Europe, is very similar: with deficits in basic research, prevention, supply reduction and policy analysis and strengths in epidemiology and treatment. Exceptions are important research activities in basic research in the USA and in policy research in Canada and Australia. Despite the ubiquitous character of drug use and its related problems, and partly considerable different demand and supply reduction actions, cross cultural research to better understand the impact of different drug policies and legal concepts as well as different concepts for presentation, treatment and for service systems, are almost lacking. In order to increase the international knowledge base, better collaboration between the EU and other global regions is recommended. Therefore, the options for improvement primarily refer to the extension of cross-cultural research and the utilization of expertises and resources (Table 6.6).

Table 6.6: Evaluation of EU drug-related research: (5) General remarks

Topics	Strengths	Weaknesses and gaps	Conclusions	Options
Distribution of research activities according to MS	Increasing competences of EMCDDA and MS Focal points to record, monitor and analyse research activities and outcome and to support national and EU research cooperation	<ul style="list-style-type: none"> – Unbalanced distribution of research activities in MS with specific deficits in new MS – Little participation of new EU MS – Lack of a strong European scientific community and European society for addiction research 	– New MS need support to improve participation in the European scientific community and European research programmes	<p>(5.1) Support of stronger participation of new MS in project proposals</p> <p>(5.2) Transfer of good experiences in European epidemiological networks to other research areas</p> <p>(5.3) Post-graduate training programmes for young researchers and PhD/MD students⁴⁹</p>
Research situation in Australia, Canada and USA	Evidence that medium term strategy of research training and development pays dividends in increasing research capacity and output over a relatively short period of time	<ul style="list-style-type: none"> – Almost no cross-cultural research – Very few bi-national cooperations 	– Given common research questions and deficits, but also country specific drug policy and social/economic conditions, stronger collaboration will reduce double work and increase the international knowledge base.	<p>(5.4) To support cross-cultural analyses of drug-related phenomena and the impact of different national supply and demand reduction actions</p> <p>(5.5) To develop common research topics with long-term priorities and to support international scientific networks, in order to better utilize available expertise and resources.</p>

⁴⁹ See also section 6.3.1 and Table 6.8

6.2.2 Access to information on research activities

The multi-dimensional data collection approach⁵⁰ confirmed that the full amount of drug-related research in MS and on EU level only partly accessible to researchers, administrators and policy makers. This is especially the case outside a specific research community or outside of one of the 23 European languages. Problems are caused by language difficulties and by access barriers related to the search for projects and publications (Table 6.7).

Language barriers

Visibility of and accessibility to research activities and outputs are required to improve the European knowledge base on illicit drug use and effective actions, to avoid duplicating efforts and to allocate scarce research resources more efficiently. The pilot analyses on the coverage of projects in France and publications in Germany (see Chapter 3.4) indicated that for a given period/year a significant proportion of projects (84%) in France and a small part of publications (about 15%) in Germany could not be traced because they did not include (at least) English titles and abstracts. These results are not representative for Europe (especially because France and Germany are two large MS with a long history of research and of national language publications), but they clearly demonstrate the problem. MS are affected differently: the UK and Ireland not at all, the more northern and central European MS to a smaller and the southern and eastern MS probably to a larger degree. But additional factors are MS size, existence of an effective national scientific community and the type of disciplines: to a lesser degree for basic sciences, epidemiology and treatment and more relevant for research in supply reduction and policy analysis, e.g. for criminology, economics and sociology.

Researchers, national and European administrators and policy makers need information on national as well as European research. A workable solution is not to publish all activities in English, but to include at least an English title and summary/abstract. One might argue that national based research in areas like supply and demand reduction or policy analysis have no European or international relevance and need not to be visible outside a specific culture or MS. This might be true in some cases of only locally relevant *research outcome* but not at all for the related *research questions* and *methodology*. Compared to the problem size caused by illicit drugs we need to use all knowledge in Europe on how to carry out research in those fields and on the outcome. Simply put: "hidden" research does not contribute to progress in the European Union.

To conclude, research in Europe is carried out in 23 different languages, and in the context of many different research cultures and traditions. In part because of this diversity, a considerable amount of research activities – mainly on MS level – is difficult to access and remains invisible due to language barriers. The analyses of research projects and publications as well as information from interviews and the Advisory Group provided strong evidence that visibility of and accessibility to relevant information is limited, with variations according to research area and MS. Possibilities for improvement are seen in the provision of English language core information for all research activities and a better coverage of European activities (projects and publications).

⁵⁰ Comprehensive searches for research projects in MS, scientific publications, country reports, selected issue of the EMCDDA (2008b), individual interviews, feed-back by national authorities (such as REITOX NFP), study Advisory Board Group.

Table 6.7: Access to information on research activities in Europe

	Strengths	Weaknesses	Conclusions	Options
Language barriers		– Limited access to information on research projects and publications because of 23 languages in the EU	– Need for better accessibility and visibility of European research activities	(6.1) Requirement to provide English titles and at least English abstracts for all research activities (project description and journal publications)
Access to research publications	– English titles and abstracts are available to a large degree	– Low coverage of European journals in international databases	– Need for better coverage of European, especially non-English language journals by international databases	(6.2) Develop EU publication policy to better represent European journals in international databases
Access to research projects		– Lack of (accessible) project descriptions – Lack of minimum English language information in non-English project descriptions	– Need for better access to and systematic search in project descriptions	(6.3) Provision of a common European drug-related project database with search features and easy access

Access to research publications

A specific problem for European journal publications is the bias of coverage rates between European and US based addiction journals in major database systems, even for non-English language European journals with English translations of titles and abstracts.

PubMed/MEDLINE (meta-database for publications on medical topics in a very broad understanding) covers 67 % of US-based addiction journals but only 32% of European journals, *Thomson Reuters* (TS, journal and publication databases, citation indexes) covers 58% and 34%, respectively. After excluding European English language journals (e.g. “Addiction”), this bias is even stronger. Only *Scopus* (a European based database and search system from Elsevier) covers a higher rate of European addiction journals (50%) (Bühlinger et al., 2006; updated). *PubMed* and *TS* are traditionally seen as more prestigious in the scientific community and there is an increased pressure for the biological and psychological sciences to publish in journals covered by these systems, much less in anthropology, criminology, economics and sociology. This differential pressure contributes to the reduced visibility and accessibility of research in supply reduction and policy analysis. Research in these fields is less intensive, but also less visible on a European level.

Based on these findings, it is clear that a considerable amount of research activity in Europe is not published in internationally available scientific journals. This situation could be improved with support for the coverage of European, non-English language scientific journals, in order to avoid the long-term decline of such journals.

Access to research projects

The number of publications in the study is 18 times higher than that for projects (after controlling for time periods). This is in part not surprising since a single project may yield several publications. But differences in visibility and accessibility are also partial explanations. Descriptions do not exist for all projects and many cannot be traced because they are not stored in common data bases.

There is no systematic and comprehensive access to a European database on drug-related research. There is no central approach to disseminating descriptive information about the aims, design, procedures, measures and resources of European research projects on illicit drugs which is accessible to the international research and policy community. There is no common database for projects funded by the European Commission, and the search in all relevant Directorates General is time consuming. The creation of such a project database would help to avoid redundancies in research applications, facilitate to systematically build on existing knowledge and to further develop scientific knowledge, to improve networks between scientists working in similar or complementary research fields and to overcome the time-consuming and exhaustive (and in many cases not comprehensive) search in numerous databases and information sources. To conduct the present study on drug-related research in Europe would be much easier. Recently, the Pompidou Group made some effort in this respect by establishing a research register on drug-related research, however, it is not developing well and the recorded project information is patchy.

In conclusion, the present study revealed that descriptive information about the aims, design, procedures, measures and resources of European research projects on illicit drugs could be made accessible to the international research and policy community. Access to this information would be especially helpful to MS with small research communities and, in general, to foster opportunities for European collaboration. The establishment of a common European database for drug-related research projects would improve the access and search features for both researchers and administrators.

6.3 Drug related research structures

6.3.1 Research capacity and infrastructure

At the MS level there is considerable and varied capacity, and the volume of research reflects this. There is a mixture of both the amount invested and the amount of research underway. However there is also considerable variation in research technical capacity and research leadership that support to execution of high-quality and highly-impact research. The development of both basic research training and more advanced research training is a critical component of future research capacity. However, at the EU level there is overall limited capacity with little substantial networking, joint working and research co-operation across the Union. The informal organizations to date have had minimal impact in promoting cross national research activity. The size and relevance of European scientific associations in the field of illicit drugs is surprisingly small. The existing associations are active and function as an important possibility for scientific exchange and cooperation for the participating researchers, but do not at all reflect the size of the problems as well as of the scientific community (Table 6.8).

In conclusion future strategic support for training of young researchers and research leaders in the drug field is a critical component of a medium term research development strategy.

The EC 7th RTD Framework Programme provides a very important generic structure for research support and development and networking. The potential of this programme to develop

research capacity for drugs research in Europe is very considerable but has to date only been utilized to a limited degree. The commitment of JLS and relevant bodies to support and encourage research development is important. There are opportunities to cultivate networks, cooperation and new initiatives that would foster research capacity. There are three possibilities for developing international research collaboration projects.

ERA-NET (European Research Area Network) is one significant structure that could be used to foster transnational research activity. The ERA-NET supports networks of programme managers and owners (not researchers) that work together and announce joint research calls. The EC does not fund research programmes, but the management of co-operations within an ERA-NET. The development of such initiatives could initially involve groups of MS programme managers and senior researchers at a European level working in a well defined area. These groups could work to bring national programme owners together to develop a cooperative strategy which has a firm national research programme base but is partnered with similar national programmes in at least two other countries. This would work where three national funding agencies had a strategic focus on addictions and drugs. It is important to note that the national projects would provide all the funding for the national research activity and ERA-NET would provide funding to foster collaboration between managers of national research programmes.

ERA-NET plus actions cover the launching, managing and financing of a joint research call under certain additional conditions, amongst others: particular European added value of the research topic, one joint call within a number of MS/AS (associated states), joint peer review of proposals, only transnational projects. Under these conditions the EC will cover the project management costs and contribute with up to 33% to the research budget.

The COST (European Cooperation in Science and Technology) programme regularly puts out calls for funding of travel budgets for meetings of researchers. The current call is just outside the time frame of this report but future calls are due on 25/9/2009, and 26/3/2010. A successful action will provide a budget of approximately 100.000 Euro to support research collaboration.

Table 6.8: Research Capacity and Infrastructure

Research areas	Strengths	Weaknesses and gaps	Conclusions	Options
Research Capacity	– Some MS strong programmes of research and highly skilled and productive researchers and centres of excellence	– Overall lack of national co-ordination and lack of specific national drug research strategies and priority setting	– Need for better co-ordination and activity at MS level in order to feed into overall EU research capacity	(7.1) Encourage development of MS National Drug Research Strategy
Research coordination and cooperation	– High quality researchers with ability to develop strong EU wide research networks	– Minimal and low level network activity currently evident	– Develop networks of researchers and programme managers to enable better utilisation of currently available application	(7.2) Support development of ERA-NET or ERA-NET Plus (for research programme managers) (7.3) Support applications for

Research areas	Strengths	Weaknesses and gaps	Conclusions	Options
			procedures	COST programme and Marie Curie fellowships (7.4) Use FP7 research programme to develop specific research networks
Developing Training Initiatives for young researchers	–Some national research programmes have developed major initiatives to promote research skills in the addictions field	–Many countries lack key junior researchers and research leaders to develop impactful national research programme	–Need to support approach to increase junior and senior research skill and capacity	(7.5) Encourage national programmes to prioritise addictions research as part of national research development strategy and support training programmes for young researchers (PhD/MD students) (7.6) Promote the use of Marie Curie Fellowships as part of training and capacity development
Research Co-ordination	–Some examples of strong national coordination and addiction research programmes	–Weak coordination of addictions research at EU level –Targets and priority setting not used for development of research activity and research commissioning	–Need for better national and EU coordination and priority setting of addictions research –Need for multidisciplinary research that combines economic, social, criminal justice and health issues	(7.7) Improve collation of current research activity through accessible databases (7.8) Improve MS national drug research strategies (7.9) Through Horizontal drug group set priorities for EU addictions

Research areas	Strengths	Weaknesses and gaps	Conclusions	Options
				research

Thirdly, the development of consortiums, which are newly successful at Framework programme applications, will result in new research collaborations as part of the implementation and completion of the research project.

In conclusion, there are major opportunities to develop the research capacities of EU drugs research through projects and through training initiatives (e.g. Marie Curie and relevant Peoples programmes). Support for such initiatives would be part of a medium term strategic initiative to improve overall quality and quantity of drugs research in Europe.

A key option for future European research is to use all available channels to support development of strong research networks. The option of three National Research programmes on drugs and addiction collaboration to develop an ERA-NET project has concrete potential and should be strongly encouraged and supported.

6.3.2 Research coordination

There is evidence of some degree of co-ordination in many MS, but there is also evidence that the majority of the larger countries have complex structures with varied bodies undertaking different types of funding and only limited co-ordination. Smaller countries appear to have more co-ordination but overall their contribution is limited in size. Apart from a small number of defined projects supported by the FP, there is no EU-level co-ordination. Opportunities to establish networks through the FPs have not been substantially developed to date. DG JLS, DG RTD and DG SANCO have at least searchable databases and websites which allow for searches for research activities currently funded or funded in the past. However, even these databases are neither linked nor harmonized and do not cover the complete range of funding without a special focus on drug research.

The drug field is a complex field spanning many areas of knowledge and there is a need to bring together scientists from a health background, with those from a criminal justice and socio economic background in order to tackle the problems from a comprehensive perspective. The need for multidisciplinary research requires bodies at the MS and EU level to encourage partnerships across disciplines in order to maximize output that is meaningful and impactful at a society level.

In conclusion research co-ordination at EU level is challenging but there are a number of key players and there are opportunities to enhance research co-operation among senior researchers that would enable a more coherent coordinated approach to international drugs research at EU level.

6.3.3 Research funding

Funding sources

The vast majority of high-quality research is supported and funded by MS and occurs at MS level. The priorities vary by country with some countries such as Germany, Spain and the UK increasing basic science research. There is a major emphasis in all MS on Epidemiology and Intervention evaluation.

We observed a general underutilisation of EC funding instruments (COST networks, ERA NET and ERA NET PLUS and specific calls within the 7 FP Programme) caused by different reasons according to our interviewees (lack of knowledge and experience, lack of specific drug related funding opportunities). The potential for funding through the EC 7th RTD Framework Programme are considerable and have not been adequately exploited. The scale of the overall resource is such that the addiction research field, across all related disciplines, needs to be encouraged to apply and make better use of this resource. Networks that encourage and support such research groups may have an important role. National contacts and support are an additional important support for the development of such applications. At EU level, the priorities are currently set within the EC 7th RTD Framework Programme. There are limited specific topics within this programme related to drugs but there are aspects of socio-economic and health care delivery systems that could apply to drugs. The security work programme has drugs as a priority for 2009 and it is hoped that some specific activity will arise from this stream of work. The activity around employment, crime and public safety that could apply quite clearly to drugs and is an area where there is potential for future research projects (Table 6.9).

In conclusion, the large network on public safety could possibly be used as a focus to promote prioritisation around criminological research on drug-related crime.

Table 6.9 Research Funding, Budgets and Procedures and Evaluation

Research areas	Strengths	Weaknesses and gaps	Conclusions	Options
Research Funding	– Potential for significant resource input at MS and EU level	– Existing EU programmes not utilised fully by researchers and limited number of research programme funded at EU level	– Significant potential for development of EU research networks and programme applications	(8.1) Set specific drug research topics for development of areas of research activity through EC 7th RTD Framework Programme
Research Budgets	– There has been growth on overall research investment at both MS and EU level in past decade	– This has had limited impact on addictions research field	– Need to develop approaches that enables addictions research field to better utilise existing options	(8.2) Earmark specific topics for development of large scale project development with a specific budget allocation to support such a development
Funding Structures and Procedures	– Competitive Investigator Driven Application Procedure	– Limits a top down approach to priority setting	– Important component of Framework programme infrastructure and unlikely to be changed	(8.3) Enable and encourage supports processes in order to improve Success of addictions applications within Framework

Research areas	Strengths	Weaknesses and gaps	Conclusions	Options
				Programme
Evaluation	<ul style="list-style-type: none"> – Considerable investment in overall EC RTD Framework Programme – Generic activity 	<ul style="list-style-type: none"> – Limited assessment of addictions research investment and output 	<ul style="list-style-type: none"> – Develop evaluation framework to assess impact of changes in approach over the next five years 	(8.4) Undertake evaluation prospectively of the next five years to demonstrate growth in quantity and quality of a broad range of addiction research topics across EU

Research budgets

At MS level there has been increased investment in drug-related research, which reflects increased funding for research on health and social systems. However much of the funding comes through generic streams and this makes it difficult to ascertain a reliable figure in many member states. Given the scale of the problem with major health care burden, major social burdens and major criminal justice costs the investment in research is very limited in virtually all settings and opportunities are lost, especially in the field of interventions and criminal justice burdens where prioritisation of budget allocation would assist in developing research in this area. In addition a long-term financing commitment is needed, as operates in the USA.

In conclusion: The large network being on public safety could possibly be used as a focus to promote prioritisation around criminological research on drug-related crime. There are opportunities to increase the amount of funding from EU sources to increase international research collaborative projects.

Funding structures and procedures

At MS level there is a complex mixture of governmental, non-governmental and university funded mechanisms which sometimes work together but most often set programmes in action independently of each other depending on their respective institutional priorities. In some MS there are some mechanisms for coordinating this. Some MS instituted specific programmes for capacity building, such as in Germany, and for networking, such as in Spain, and more recently in the UK, where a Medical Research Council project develops addiction research clusters. This arose out of the recognition that much contemporary applied research is undertaken across larger networks. Programmes in MS that enable capacity-building and networking could be linked together across MS at a future date.

At the EC 7th RTD Framework Programme the application procedure is an investigator-driven process and the final projects commissioned are significantly determined by this. This is likely to be a process that enhances competitiveness and enables overall high-quality research. This however, also hinders options for developing areas of research and research topics that are not driven by application processes and strength of applicants. This is a clearly fundamental structure, and it is not suggested that this change, but that it be noted as a potential explanation of some of the limits to the current range of research through the Framework Programme.

In conclusion: The FP7 has a very small drug specific research base, but it is possible for drug researchers to apply within the more generic framework. There is a need to monitor the success of applicants within these current programmes in order to ensure that an adequate amount of drug-related research is developed.

Evaluation of MS and EC funding programmes and procedures

At the MS level a number of limited assessments of funding programmes have been undertaken such as in the UK the Drug Misuse Research Initiative was subject to a substantial level of overview and impact evaluation as part of the overall commissioning process. By comparison to some of the work reported from Australia, USA and Canada there is a striking lack of reported evaluation of research funded programmes. At the EU level the EC RTD Framework Programme has been subject to substantial generic evaluation. This report is the first major overview and assessment of the state of drug-related research in Europe for over a decade and indicates the paucity of overview. The procedures have been subject to consultation but there has not been any specific review of procedures with reference to methods to change drug-related research priorities.

Separate drug-related research and funding or integration in substance-related research or in generic disciplines within MS commentators consistently state that drug-related research has improved in scale, quantity and quality when specific funding based research initiatives have been supported. The limitation of such an approach is that when such funding is provided it can result in restriction of access to generic research funding, as was reported in Sweden. So there is a complex balance to be drawn between specific research programmes and initiatives and ensuring that generic research funding is used to promote a broad range of drug-related research in areas such as socio-economics, criminology and public safety.

In Conclusion: There is a need for future research programmes to be shaped by assessment and evaluation to ensure that priorities are set that are influenced by results. The EU is well placed to initiate such reflection of objectives met and determine value for money invested in research

6.3.4 Research cooperation

There is a number of health and social survey projects such as ESPAD that have been coordinated through international organizations and that have provided important information for comparison purposes across EU member states. The funding for such projects has been modest and the objectives of the projects have been pragmatic and have resulted in a long term positive contribution to international comparative data of a modest and limited scope. The degree of participation in European research activities (e.g. projects funded by the different Directorates-General of the EC) considerably varies across MS. Certain countries (e.g. Sweden) are much more active with regard to taking over a coordinative role in international projects or even in participating in international consortia (Table 6.10).

There is a large body of research underway in different MS and some of these projects have great potential for transferability into settings where such work currently does not occur. The transferability of skills and research projects could be one mechanism to increase capacity across the EU.

According to information provided by key informants (e.g. Czech Republic), reasons for these differences reflect a lack of human resources for the comprehensive application procedures or lack of knowledge with regard to project regulations and management on European level. There is also a perception that there is insufficient transparency or support from European institutions.

Discussion among scientists indicates that there is increasing interest in many MS in longitudinal research work and a need for such work to be coordinated across MS. There is a need to identify large scale generic longitudinal projects that could have a drug-related component attached in order to enhance the ability of longitudinal drug-related research work to take place in the context of other broader longitudinal work. Apart from the social survey the work on Geneaddict, Imagen and the work on laboratory standards on Amphetamines, and the network on DRUID, there is no substantial work underway to link the major work being undertaken at the MS level with broader EU and other European Organization co-operation.

In conclusion: Research co-ordination and co-operation across a large and complex system is a formidable challenge and there is great need for a pragmatic approach to such a task. Information and experience sharing, as well as project development, play important roles in addressing EU-wide problems. There is a need to support large-scale scientific projects that address specific technical questions that are best-addressed within large-scale and longitudinal work.

Finally, there is a large amount of research funding within the 7th Framework Technical Programme. To date, researchers in the drugs and addiction field have used this programme to a limited extent. It is important to foster a range of initiatives that will encourage greater involvement and greater activity of addictions researchers in the 7th Framework Technical Programme. To this end there would be considerable benefit in bringing top-level addiction researchers, national research programme managers and key policy people at the EU and national level together to explore the best channels for promoting network and support for the further development and expansion of EU-related drug and addiction research.

Table 6.10 Research Co-operation

Research areas	Strengths	Weaknesses and gaps	Conclusions	Options
Research Co-operation	– Good infrastructure of researchers within MS across a range of specific topics	– Network and co-operative research activity limited	– Need to foster cooperation and strengthen network and communication	(9.1) Encourage support networks (9.2) Consider use of structures to support this (9.3) Develop conference with key stakeholders to explore priorities and mechanism for broader cooperation
EU wide research projects	– Potential to develop research projects that require large scale activity to address key questions	– Limited activity to date, requires high level co-operation across a number of national research programmes	– If some key research questions are to be addressed there is a need for some large scale international cooperation,	(9.4) Develop key areas of potential large scale research activity that could be addressed through international cooperation and set priorities for such projects

Research areas	Strengths	Weaknesses and gaps	Conclusions	Options
		on specific research topics	which could include other key researchers	(9.5) Longitudinal Cohort studies is one of the potential areas for such development

7 Summary of Options for Stepping up Drug-Related Research in the European Union

7.1 Is there a need to step up drug-related research?

Member States differ widely in the prevalence and size of drug use and related problems, and also in their views on and priorities for policy action to tackle drug-related problems. They also differ in research-related indicators such as infrastructure, priorities, funding programmes, procedures and budgets, and involvement in Commission-funded research programmes. Compared to Member States' research needs in policy documents, the study identified a number of deficit areas. At European level there is a limited amount of Commission funding available for drug-related research under different programmes, but the opportunities are underutilised: the number of funded projects in recent years has been surprisingly small. Lack of knowledge and experience as well as complicated application procedures were mentioned in the interviews as key problem areas. Moreover, FP7 has no specific illicit drugs research topics, with the exception of the FP7 Security Programme. A comparison of research needs in Commission drug-related policy documents with the present situation showed up several areas with knowledge deficits.

Given the current state of drug-related research in the Member States and at EU level, and the research needs defined in drug policy documents and derived from our conceptual model, the need to step up research activities and build up structures is evident. Mindful of the range of diversity in the Member States, the study yielded the following options to improve drug-related research as a basis for a better knowledge base in Europe.

Options at MS level

(1) To expand research activities in the following fields:

- Basic research: to gain a better understanding of the onset, course and cessation of drug use and relapse, including individual risk differences and the relevance of both internal (e.g. genetic factors and psychological mechanisms) and external factors (e.g. availability, legal systems, cultural, economic and social aspects).
- Epidemiology: studies on specific risk groups, on the early stages of drug use and longitudinal studies.
- Selective and targeted prevention and specific aspects of treatment research (mechanisms of change).
- Much more involvement in research into drug supply, supply reduction and policy analyses: especially on the impact of legal regulations and social influence factors.

(2) To improve cross-national visibility of and accessibility to research activities in the Member States by providing core information in English and by internet storage of Member States' research activities.

(3) To develop long-term national research funding programmes and priorities based on Member States' drugs strategies and regular updating of such programmes and priorities in line with research outcomes and changing drug trends.

(4) To increase research capacity in the Member States and to train and develop the skills of young researchers.

(5) To help researchers make better use of European research funding opportunities, such as DG RTD's funding programmes.

Options at Commission level

(6) To provide funding for the following research areas and topics, with added value for the European knowledge base (i.e. through the participation of several Member States):

- Basic research: longitudinal studies to understand the impact of individual, cultural, economic, legal and social factors on the onset, course and cessation of drug use.
- Epidemiology: (longitudinal) studies and studies for specific high-risk groups, such as children of drug users, drug users in their early stages, in prison and poly-drug users.
- Demand reduction: multi-site treatment studies to understand the impact of social factors and treatment service systems on treatment costs and outcome; selective and indicated prevention studies to develop early risk identification patterns and to understand the impact of different social and legal conditions on outcomes.
- Supply reduction: comparative studies to analyse supply channels and distribution patterns in the general population and in risk groups as well as the effectiveness and efficacy of different Member States' supply reduction measures and policies.
- Policy analysis: comparative studies to understand differences in European drug policies and the impact on the pattern and size of national drug problems.

(7) To support the visibility and accessibility of European drug-related research activities, through better coverage of European publications in international publication databases and support for a European research project database.

(8) To provide research training opportunities for young researchers and researchers with resource deficits, and to support and enhance project applications for Commission funding programmes.

7.2 Is there a need for greater European cooperation on drug-related research?

The question cannot be answered by a simple yes or no, and conclusions depend on strategic targets for research funding in the EU. If the study results and the proposed options serve as an information basis for predominantly independent measures in the Member States and at Commission level, greater research coordination is dispensable. But further strategic targets might be emphasised in the light of the Lisbon Strategy to help make Europe the top research region and to make systematic use of research outcomes for '... well designed social and environmental policies ...' (European Parliament, 2005). This kind of scenario does require additional mechanisms to structure and monitor coordinated research programmes between Member States and the Commission:

(9) To get the Member States, the Commission and the scientific community to commit to a comprehensive and strategic drug-related research initiative in Europe, prioritising research topics and coordinating research funding programmes both at Commission and Member State level and within the Member States themselves, where drug policy priorities are often not integrated or addressed by research policy priorities.

(10) To provide a coordinating structure to bring together drug policy-makers and research programme funders to identify synergies between national research programmes and areas for joint cooperation, and to provide regular monitoring of research needs, research activities and research outcome analyses in Europe.

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Appendix 1.1

Matrix I: Research Publications

	Sub-topic	MS	Author affiliation	Research discipline (profession)	Type of research	Impact Factor	Scope	Substance (F1x)	Focus on related areas	Year of publication
1. Drug mechanisms, effects and methods of detection	1.1 Mechanisms of action	<i>Acute and long-term bio-chemical, physiological effects of drug use; Chronicity of effects; Overdose thresholds</i>								
	1.2 Toxicology	<i>Acute and long-term toxicity of drugs</i>								
	1.3 Drug effects on emotion, cognition, behaviour	<i>Drug effects on driving, work and school performance, social relations</i>								
	1.4 Clinical Psychology	<i>Psychological effects of drug use, comorbidities</i>								
	1.5 Global	<i>Development of new methods of detection</i>								
2. Aetiology and course		<i>Processes for (1) onset and course of drug use and (2) reduction/cessation of drug use without formal help; Interaction of genetic, psychological, social, environmental and general social factors; sociological research on drug use and drug determinants; anthropological studies on conditions of use</i>								
3. Epidemiology	3.1 Population based	<i>Prevalence, incidence, use patterns in general national and regional population surveys; trends over time; epidemiology of concomitant use and comorbidities</i>								
	3.2 Clinical target groups	<i>epidemiology of health and social consequences (e.g. infectious diseases and mortality) in drug use populations (models, risk factors); inpatient and outpatient samples</i>								
	3.3 Other specific target groups	<i>Drug use in prisons</i>								
4. Intervention	4.1 Environmental prevention	<i>Improvement of economic, educational, social and health conditions and relevant (support) agencies; environmental prevention of infectious diseases or other health/social consequences of drug use (consumption rooms, shelters)</i>								
	4.2 Person-oriented prevention	<i>Information, education; Programmes for families, recreational settings and school; Information and training of significant others (parents, teachers, peers, medical and social staff); needle exchange programmes?</i>								
	4.3 Treatment	<i>Treatment programmes (psychosocial, pharmacological, combined programmes); Different targets (harm reduction vs. cessation); Different intensity (minimal vs. intensive interventions); Different sites (specialised vs. general facilities); Forced treatment (parole, coercion); Analysis of treatment factors (treatment, therapist, setting, social support, patient factors)</i>								
	4.4 Global	<i>Cost-effectiveness of different treatments, economic aspects</i>								
5. Policy	5.1 Domestic Drug Policy	<i>Research into the relationship between evidence and policy factors in forming drug policy Explorations of tensions within drug policy: Supply vs Demand reduction; Treatment vs Legal sanctions; Harm reduction vs Abstinence</i>								

Appendix 1.1

Matrix I: Research Publications

	5.2 Supranational-policy/treaties	<i>The development of supra-national drug related policy and treaties. Economic and political factors. Impact from and on other policy areas e.g. foreign policy</i>
6. Legal frameworks	6.1 Illicit drug related law	<i>Research on the type and impact of legal measures to impact on overall population reported levels of ever drug use, and regular and dependent drug use and associated negative factors. The effectiveness of changes in the law and different types and severity of legal sanctions.</i>
	6.2 Regulatory practices	<i>Drug classification and control. Precursor classification and control. Identification and control of new substances.</i>
7. Drug supply	7.1 Prevalence	<i>Trends and levels of illicit drug cultivation and production with in the EU areas. Factors influencing changes in the prevalence of drug cultivation and production</i>
	7.2 Cultivation	<i>Prevalence of illicit drug cultivation within EU area (natural drugs). Patterns and practices associated with cultivation. Cultivation within countries outside EU area.</i>
	7.3 Manufacture (including precursors)	<i>The prevalence of illicit drug production in the EU area (synthetic drugs). Sources of precursors. Risks and harms associated with illicit drug production</i>
	7.4 Trafficking	<i>Sources of trafficked drugs: internal and external to EU areas. Main routes and transport practices. Impact on areas along trafficking routes. Factors influencing the success and failure of trafficking. Economic and political factors</i>
	7.5 Diversion/Leakage	<i>Research into the prevalence and practices of diversion/leakage of prescription drugs (including substitution drugs) into the illicit markets.</i>
	7.6 Quality/Price	<i>Analysis of current price and purity, trends, patterns, regional differences and related factors</i>
	7.7 Drug markets	<i>Social and economic dynamics of markets, Impact of drug market on overall black market economy. Open/closed markets. Internet markets: sources and associated practices method of delivery and packaging.</i>
	7.8 New Trends	<i>Research into the monitoring of current and emerging trends re: types of drugs available, drugs price elasticity</i>
	7.9 Horizon scanning: Drug supply	<i>Evidence based and expert knowledge based forecasting of future changes in the production, trafficking and supply of illicit drugs e.g. UK Foresight Programme</i>
8. Interdiction	8.1 Interdiction funding	<i>Supra-national, national and local funding levels and patterns. Strategies for providing funding.</i>
	8.2 Cultivation/Production disruption and displacement	<i>Research into practices to displace or disrupt the cultivation and production of illicit drugs within the EU area and the main producing countries e.g. Afghanistan</i>
	8.3 Organised	<i>Role of organised crime in relation to the overall illicit drugs market</i>

Appendix 1.1

Matrix I: Research Publications

	crime	
	8.4 Trafficking	<i>Police and Custom activities. Trafficking routes into and within EU area. Impact of disruption of trafficking pathways on markets. Factors influencing trafficking activities. Transport methods.</i>
	8.5 Drug supply related forensics	<i>Current and new methods of monitoring, detection and source identification of precursors and illicit drugs</i>
	8.6 Money Laundering	<i>Monitoring of money laundering. Diversion of laundered money. Fiscal and banking practices and laundering of drug money</i>
	8.7 Local drug markets	<i>Research in the disruption and displacement of local drug markets. Integration with demand reduction activities and intervention activities</i>
	8.8 Security issues	<i>Drug related acquisitive offending, offending committed under the influence of drugs</i>
	8.9 CJS initiatives	<i>Treatment orders. Drug Courts. Intensive supervision programmes</i>
	8.10 Efficacy of interdiction	<i>Precursors seizures, Drug seizures changes in prevalence and/or illicit drug price</i>
	8.11 Information sharing and cooperation	<i>Research into the strategies and methods of information and co-operation between law enforcement agencies within and across MS countries. Limitations on and facilitators of information sharing and co-operation between law enforcement agencies</i>
	8.12 Interdiction horizon scanning	<i>Evidence based and expert knowledge based forecasts of the future contexts, requirements and possibilities for interdiction of drug supply e.g. UK Foresight Programme</i>
9. Meta area		<i>Reviews and evaluations of drug research or funding sources</i>
10. Other		

Appendix 1.1

Matrix II: Research Projects

	Sub-topic	MS	Project director affiliation	Research discipline (profession)	Type of research	Scope	Substance (Flx)	Funding agency	Funding structure	Funding programme	Funding volume	Project time period	Focus on related areas
1. Drug mechanisms, effects and methods of detection	1.1 Mechanisms of action	<i>Acute and long-term bio-chemical, physiological effects of drug use; Chronicity of effects; Overdose thresholds</i>											
	1.2 Toxicology	<i>Acute and long-term toxicity of drugs</i>											
	1.3 Drug effects on emotion, cognition, behaviour	<i>Drug effects on driving, work and school performance, social relations</i>											
	1.4 Clinical Psychology	<i>Psychological effects of drug use, comorbidities</i>											
	1.5 Global	<i>Development of new methods of detection</i>											
2. Aetiology and course		<i>Processes for (1) onset and course of drug use and (2) reduction/cessation of drug use without formal help; Interaction of genetic, psychological, social, environmental and general social factors; sociological research on drug use and drug determinants; anthropological studies on conditions of use</i>											
3. Epidemiology	3.1 Population based	<i>Prevalence, incidence, use patterns in general national and regional population surveys; trends over time; epidemiology of concomitant use and comorbidities</i>											
	3.2 Clinical target groups	<i>epidemiology of health and social consequences (e.g. infectious diseases and mortality) in drug use populations (models, risk factors); inpatient and outpatient samples</i>											
	3.3 Other specific target groups	<i>Drug use in prisons</i>											
4. Intervention	4.1 Environmental prevention	<i>Improvement of economic, educational, social and health conditions and relevant (support) agencies; environmental prevention of infectious diseases or other health/social consequences of drug use (consumption rooms, shelters)</i>											
	4.2 Person-oriented prevention	<i>Information, education; Programmes for families, recreational settings and school; Information and training of significant others (parents, teachers, peers, medical and social staff); needle exchange programmes?</i>											
	4.3 Treatment	<i>Treatment programmes (psychosocial, pharmacological, combined programmes); Different targets (harm reduction vs. cessation); Different intensity (minimal vs. intensive interventions); Different sites (specialised vs. general facilities); Forced treatment (parole, coercion); Analysis of treatment factors (treatment, therapist, setting, social support, patient factors)</i>											
	4.4 Global	<i>Cost-effectiveness of different treatments, economic aspects</i>											
5. Policy	5.1 Domestic Drug Policy	<i>Research into the relationship between evidence and policy factors in forming drug policy Explorations of tensions within drug policy: Supply vs Demand reduction; Treatment vs Legal sanctions; Harm reduction vs Abstinence</i>											

Appendix 1.1**Matrix II: Research Projects**

	5.2 Supranational-policy/treaties	<i>The development of supra-national drug related policy and treaties. Economic and political factors. Impact from and on other policy areas e.g. foreign policy</i>
6. Legal frameworks	6.1 Illicit drug related law	<i>Research on the type and impact of legal measures to impact on overall population reported levels of ever drug use, and regular and dependent drug use and associated negative factors. The effectiveness of changes in the law and different types and severity of legal sanctions.</i>
	6.2 Regulatory practices	<i>Drug classification and control. Precursor classification and control. Identification and control of new substances.</i>
7. Drug supply	7.1 Prevalence	<i>Trends and levels of illicit drug cultivation and production within the EU areas. Factors influencing changes in the prevalence of drug cultivation and production</i>
	7.2 Cultivation	<i>Prevalence of illicit drug cultivation within EU area (natural drugs). Patterns and practices associated with cultivation. Cultivation within countries outside EU area.</i>
	7.3 Manufacture (including precursors)	<i>The prevalence of illicit drug production in the EU area (synthetic drugs). Sources of precursors. Risks and harms associated with illicit drug production</i>
	7.4 Trafficking	<i>Sources of trafficked drugs: internal and external to EU areas. Main routes and transport practices. Impact on areas along trafficking routes. Factors influencing the success and failure of trafficking. Economic and political factors</i>
	7.5 Diversion/Leakage	<i>Research into the prevalence and practices of diversion/leakage of prescription drugs (including substitution drugs) into the illicit markets.</i>
	7.6 Quality/Price	<i>Analysis of current price and purity, trends, patterns, regional differences and related factors</i>
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8. Interdiction	8.1 Interdiction funding	<i>Supra-national, national and local funding levels and patterns. Strategies for providing funding.</i>
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	8.3 Organised crime	<i>Role of organised crime in relation to the overall illicit drugs market</i>

Appendix 1.1**Matrix II: Research Projects**

	8.4 Trafficking	<i>Police and Custom activities. Trafficking routes into and within EU area. Impact of disruption of trafficking pathways on markets. Factors influencing trafficking activities. Transport methods.</i>
	8.5 Drug supply related forensics	<i>Current and new methods of monitoring, detection and source identification of precursors and illicit drugs</i>
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	8.12 Interdiction horizon scanning	<i>Evidence based and expert knowledge based forecasts of the future contexts, requirements and possibilities for interdiction of drug supply e.g. UK Foresight Programme</i>
	9. Meta area	<i>Reviews and evaluations of drug research or funding sources</i>
	10. Other	

Appendix 1.2**Interview guidelines 1: For Member States**

Overview: Main topic areas for interview schedule

- (1) Evaluation and discussion of our desk work for the specific country (country report and project/publication annexes)
 - (2) History of (strategic) development and vision behind the development of research capacity and funding infrastructure in your country
 - (3) Future strategic approaches/concepts aimed at building research capacity and research funding infrastructure
 - (4) Personal evaluation of current funding situation, especially on EU level
-

(1) Evaluation and discussion of desk work

Aim of this part of the interview is to check the completeness and consistency of our country reports. Based on the country report as well as its annexes (list of research projects and publications) the interviewee should state if our desk work reflects the real research and funding situation in the specific country and – if necessary – add relevant information.

Research structure

Please ask for each of the following points if the information summarised in the country report reflects the real situation in the country (according to the interviewee's perception). If the particular information is not available in the report please ask the interviewee to complete that issue.

(1) Key research structures involved at national level

- Major research institutes
- Coordination of research (on the scientific and administrative/political level)
- Major meetings
- Research societies

(2) Key research topics and areas/trends 2001 – 2006

Please target key research topics within every of the following areas as well as priorities between the areas

- Drug mechanisms, effects and methods of detection
- Aetiology and course
- Epidemiology

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- Intervention
- Policy
- Legal frameworks
- Drug Supply
- Interdiction
- Meta area
- Other

The following topics are not explicitly included in the country report; please ask for the interviewee's perception of the situation.

(3) Major research collaborations in the drug field with EU partners**(4) Major research collaborations with EU organisations and other organisations in Europe****(5) Proportion of non-English research publications (estimation)****National funding structure**

Please ask for each of the following points if the information summarised in the country report reflects the real situation in the country (according to the interviewee's perception). If the particular information is not available in the report please ask the interviewee to complete that issue.

(6) Funding agencies (brief description) and research budgets

- Budget by agency
- Budget by research areas priorities
- Total country budget/year
- Time frame 2001 – 2006

(7) Model of prioritisation and coordination of research funding

- Processes and responsibilities, key stakeholders
- Structure of funding (open investigator-driven proposals vs. strategic initiatives with a defined thematic area)

(8) Priorities for 2004 – 2008 (and further on, if existent)

- Areas
- Type of funding instruments and funding procedures

The following topics are not explicitly included in the country report; please ask for the interviewee's perception of the situation.

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(9) Relevance of EU funding sources (type and research fields)

(10) Relevance of other research funding sources in Europe (e.g. industry, WHO, UNODC)

(2) History of strategic development and vision behind the development of research capacity and funding infrastructure

Aim of this part of the interview is to get an overview of the historical development of illicit drug related research and its funding up to the year 2006. Structural as well as content related aspects are relevant to illustrate those developments that led to the current situation.

(11) Historical development of research capacity

- Creation and development of major research organisations in the field of illicit drugs
- Research priorities over the years (e.g., major shifts in prioritisation)

(12) Historical development of funding infrastructure

- Creation and development of major funding infrastructures relevant to the field of drug research
- Context of drug related research funding (subsumed under health research funding or own budget)
- Funding priorities over the years
- Remarkable increases/decreases in funding budgets

(13) Publications on research and funding

Do you know any report or paper concerning research activities, research trends or funding in your country?

(3) Future strategic approaches/concepts aimed at building research capacity and funding infrastructure

Major aspect of this part of the interview is the personal assessment of the interviewee regarding the near and distant future of drug related research and funding in the specific country. The timeframe of interest starts with the years 2007/2008 and goes onwards to the future.

(14) Future development of research capacity

- Foreseeable shifts in research priorities

(15) Funding development of funding infrastructure

- Establishment of new drug related funding programmes

Appendix 1.2**(4) Personal evaluation**

The personal evaluation of the national situation is a major part of the interview as this will also be an important element of our project's final report. The identification of specific strengths, needs and gaps as well as recommendations and suggestions for improvements are of great interest for the EU. Please be as detailed as possible.

(16) National research and funding situation

Please evaluate your country situation in terms of strengths, weaknesses, gaps and suggestions for improvements for:

- The research situation (e.g., prioritisation, stability, cooperation, research topics)
- Funding situation (e.g., mechanisms, procedures, amount of money)

(17) EU funding situation

Please evaluate the EU funding structures in terms of transparency, strengths, main obstacles, needs and suggestions for improvement for:

- Funding opportunities
- Funding programmes
- Application process
- (Financial) Reporting
- Processing
- Formal requirements

(18) National infrastructure of research applications for EU funded projects

- Recommendations for improving research structures
- Are possible problems caused by lack of money or lack of experience?
- Number and percentage of unsuccessful applications
- Reasons for not applying for research funds.
- For the period 2001-2006: Applications, topics, focus, granting
- Problems for co-funding?
- Address 7th framework programme of the EU
- Address experiences, difficulties with applications within the countries
- Address former framework programmes. Did the countries apply?
- Are there difficulties with social research on the transnational level?

Appendix 1.2**Interview guidelines 2: For EU and other European or international organisations**

Overview: Main topic areas for interview schedule

- (1) Evaluation and summary of current situation
 - (2) History of (strategic) development and vision behind the development of research capacity and/or funding infrastructure in your agency
 - (3) Future strategic approaches/concepts aimed at building research capacity and/or research funding infrastructure
 - (4) Personal evaluation of current funding situation, especially on EU level
-

(1) Evaluation and summary of current situation

Aim of this part of the interview is to get an overview on the current research and especially funding situation within the specific organisation. Please ask for the interviewee's perception of the situation.

Research structure

- (1) **Major research collaborations in the drug field with EU partners**
- (2) **Major research collaborations with other EU organisations and other organisations in Europe**

Funding structure

- (3) **Research budgets**
 - Budget by research areas priorities
 - Total budget/year
 - Time frame 2001 – 2006
- (4) **Model of prioritisation and coordination of research funding**
 - Processes and responsibilities, key stakeholders
 - Structure of funding (open investigator-driven proposals vs. strategic initiatives with a defined thematic area)

Appendix 1.2**(5) Priorities for 2004 – 2008 (and further on, if existent)**

- Areas
- Type of funding instruments and funding procedures

(2) History of strategic development and vision behind the development of funding infrastructure

Aim of this part of the interview is to get an overview of the historical development of illicit drug related research and its funding up to the year 2006. Structural as well as content related aspects are relevant to illustrate those developments that led to the current situation.

(6) Historical development of funding infrastructure

- Creation and development of major funding infrastructures relevant to the field of drug research
- Context of drug related research funding (subsumed under health research funding or own budget)
- Funding priorities over the years
- Remarkable increases/decreases in funding budgets

(7) Publications on research and funding

Do you know any report or paper concerning research activities, research trends or funding in your agency?

(3) Future strategic approaches/concepts aimed at building and funding infrastructure

Major aspect of this part of the interview is the personal assessment of the interviewee regarding the near and distant future of drug related research and funding in the specific country. The timeframe of interest starts with the years 2007/2008 and goes onwards to the future.

(8) Future development of funding infrastructure

- Establishment of new drug related funding programmes

(4) Personal evaluation

The personal evaluation of the current situation in Europe is a major part of the interview as this will also be an important element of our project's final report. The identification of specific strengths, needs

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and gaps as well as recommendations and suggestions for improvements are of great interest for the EU. Please be as detailed as possible.

(9) EU funding situation

Please evaluate the EU funding structures in terms of transparency, strengths, main obstacles, needs and suggestions for improvement for:

- Funding opportunities
- Funding programmes
- Application process
- (Financial) Reporting
- Processing
- Formal requirements

Please ask for the interviewee's perception or ideas regarding obstacles within Member States to engage in EU funding programmes.

(10) National infrastructure of research applications for EU funded projects

- Recommendations for improving research structures
- Are possible problems caused by lack of money or lack of experience?
- Number and percentage of unsuccessful applications
- Reasons for not applying for research funds
- For the period 2001-2006: Applications, topics, focus, granting
- Problems for co-funding?
- Address 7th framework programme of the EU
- Address experiences, difficulties with applications within the countries
- Address former framework programmes. Did the countries apply?
- Are there difficulties with social research on the transnational level?

Specific question for interviews with EU representatives

What are the evaluation procedures for drug related research applications (similar criteria for all scientific applications or specific criteria for drug related research, because of specific research conditions)?

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1. Publications of the EMCDDA

National Reports EMCDDA

www.emcdda.europa.eu/publications/national-reports

Selected Issues EMCDDA

<http://www.emcdda.europa.eu/publications/selected-issues/research>

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2. Publication Databases

SCOPUS

<http://www.scopus.com/scopus/home.url>

Pub Med

<http://www.ncbi.nlm.nih.gov/pubmed/>

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3. Project Databases

Cordis

<http://cordis.europa.eu/search/index.cfm?fuseaction=proj.advSearch>

EDDRA

<http://www.emcdda.europa.eu/themes/best-practice/examples>

Pompidou

<http://www.pregister.coe.int/Pompidou/WebForms/Accueil.aspx>

Appendix 2.1**4. European and international organisations**

World Health Organisation – Regional Office for Europe (WHO)

<http://www.euro.who.int/alcoholdrugs>

United Nations Office on Drugs and Crime (UNODC)

<http://www.unodc.org/unodc/en/illicit-drugs/index.html>

European Police Office (Europol)

<http://www.europol.europa.eu/>

Joint United Nations Programme on HIV/AIDS (UNAIDS)

<http://www.unaids.org/en/>

European Medicines Agency (EMA)

<http://www.emea.europa.eu/>

European Centre of Disease Prevention and Control (ECDC)

<http://ecdc.europa.eu/en/>

European Monitoring Centre for Drugs and Drug Addiction (EMCDDA)

<http://www.emcdda.europa.eu/>

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5. Organisations and Institutions in the MS

5.1 Austria

Bundesministerium für Gesundheit, Familie und Jugend

<http://www.bmgfj.gv.at/>

Bundesministerium für Wissenschaft und Forschung

<http://www.bmwf.gv.at/>

Gesundheit Österreich GmbH / Austrian Health Institute (GÖG/ÖBIG)

www.oebig.at

ChEck iT!

<http://www.checkyourdrugs.at/>

Health Management Colleges of Higher Education

www.portal.ac.at

Hospitals of Psychiatry of the Universities of Vienna and Innsbruck

www.meduniwien.ac.at/psychiatrie

www.i-med.ac.at/psychiatry

Ludwig Boltzmann Institute of Addiction Research (LBISucht)

www.api.or.at/lbi

Ludwig Boltzmann Society

www.lbg.ac.at

Social Work Colleges of Higher Education

www.bildungssystem.at

5.2 Belgium

Belgischer Föderaler Öffentlicher Dienst Volksgesundheit, Sicherheit der Nahrungsmittelkette und Umwelt

<https://portal.health.fgov.be>

Modus Vivendi

www.modusvivendi-be.org

Infor Drogues

www.infordrogues.be

Onderzoekersplatform VAD

www.vad.be

University of Antwerp: Faculty of Medicine, department of Epidemiology and Social Medicine

www.ua.ac.be/main.aspx?c=*FGENOND&n=3308

Ghent University, Faculty of Psychology and Educational Sciences, Faculty of Law and Faculty of Pharmaceutical Sciences (Startseite Fakultät)

www.ugent.be

Scientific Institute of Public Health

www.iph.fgov.be

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5.3 Bulgaria

Министерство на Здравеопазването

www.mh.government.bg

Ministry of Education and Science

<http://www.minedu.government.bg/opencms/opencms/index.html>

5.4 Cyprus

Government Web Portal

www.cyprus.gov.cy

Ministry of Education and Culture

www.highereducation.ac.cy

Educational Psychology Services of the Ministry of Education and Culture

www.moec.gov.cy

Research Center at Intercollege, Nicosia

http://www.intercol.edu/nqcontent.cfm?a_id=1867

KENTHEA

<http://www.kenthea.org.cy/>

5.5 Czech Republic

Ministerstvo zdravotnictví České republiky

www.mzcr.cz

Ministerstvo školství, mládeže a tělovýchovy

www.msmt.cz/ministerstvo

Centre for Addictology, Psychiatric Clinic, 1st Faculty of Medicine and General Teaching Hospital, Charles University in Prague

<http://www.adiktologie.cz/>

Institute of Criminology and Social Prevention

<http://www.kriminologie.cz>

Institute of Forensic Medicine and Toxicology, 1st Faculty of Medicine and General Teaching Hospital, Charles University in Prague.

<http://soudni.lf1.cuni.cz>

Institute of Health Information and Statistics of the Czech Republic

<http://www.uzis.cz/>

Institute of Pharmacology, Medical Faculty, Masaryk University in Brno

<http://www.med.muni.cz/farmakol/farmakc.html>

Institute of Psychology, Academy of Science of the Czech Republic

<http://www.psu.cas.cz/>

Prague Psychiatric Centre, 3rd Faculty of Medicine, Charles University in Prague

<http://www.pcp.lf3.cuni.cz/pcpout/>

Public Opinion Poll Centre, Institute of Sociology, Academy of Science of the Czech Republic

<http://www.cvvm.cas.cz/>

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5.6 Denmark

Ministry of Health and Prevention

www.sum.dk

Ministry of Science, Technology and Innovation

<http://en.vtu.dk/>

Centre for Alcohol and Drug Research (CRF) at the University of Aarhus

<http://www.crf-au.dk/>

Faculty of Law at the Copenhagen University

<http://jur.ku.dk/>

Institute of Epidemiology and Social Medicine in Aarhus

www.au.dk/en/sun/epidsoc

Odense University Hospital

www.ouh.dk

State Institute for Public Health (SIF)

<http://www.niph.dk/>

University of Southern Denmark

www.sdu.dk

5.7 Estonia

Ministry of Social Affairs

www.sm.ee

Estonian Ministry of Education and Research

www.hm.ee

National Institute for Health Development

www.tai.ee

Tallinn University

www.tlu.ee

University of Tartu

www.ut.ee

5.8 Finland

Ministry of Social Affairs and Health

www.stm.fi/

Ministry of Education

www.minedu.fi

A-Clinic Foundation

www.a-klinikka.fi/

National Research and Development Centre for Welfare and Health (STAKES)

Finnish Foundation for Alcohol Studies

<http://info.stakes.fi/ats/EN/staff/index.htm>

Helsinki Deaconess Institute

<http://hdi-en.eyhdistys.fi/>

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National Public Health Institute
www.ktl.fi

National Research Institute on Legal Policy
www.optula.om.fi

Nordic Centre for Alcohol and Drug Research (NAD)
www.nad.fi/

5.9 France

La Ministre de la Santé, de la Jeunesse, des Sports et de la Vie associative
www.sante-jeunesse-sports.gouv.fr

Ministère de l'Enseignement supérieur et de la Recherche
www.enseignementsup-recherche.gouv.fr

Centre National de la Recherche Scientifique [CNRS]
www.cnrs.fr

Ecole des Hautes Etudes en Sciences Sociales
www.ehess.fr

Institut de Prévention et d'Education pour la Santé
www.inpes.sante.fr

Institut de Recherche sur le Développement (géographie, économie et sociologie du développement)
www.ird.fr

Institut de Veille Sanitaire
www.invs.sante.fr

Institut National de la Recherche Agronomique (économie et sociologie de la consommation alimentaire)
www.inra.fr

Institut National de la Santé et de la Recherche Médicale [INSERM]
www.inserm.fr

Observatoire Français des Drogues et des Toxicomanies
www.ofdt.fr

Observatoires Régionaux de la Santé (ORS)
www.ors-idf.org

5.10 Germany

Bundesministerium für Gesundheit
www.bmg.bund.de

Federal Ministry of Education and Research
www.bmbf.de

Baden-Württemberg Addiction Research Association (BW)
www.bw-suchtweb.de

Central Institute of Mental Health (Zentralinstitut für seelische Gesundheit, ZI) in Mannheim
www.zi-mannheim.de

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Centre For Drug Research (CDR) in Frankfurt/M
<http://www.uni-frankfurt.de/fb/fb04/forschung/cdr/index.html>

Centre for Interdisciplinary Addiction Research (Zentrum für interdisziplinäre Suchtforschung, ZIS) in Hamburg
www.zis-hamburg.de

Faculty for Health Sciences at the University of Bielefeld
<http://www.uni-bielefeld.de/gesundhw/>

Federal Center for Health Education (Bundeszentrale für gesundheitliche Aufklärung (BZgA)
www.bzga.de

Institute for Psychology and Psychotherapy at Dresden University of Applied Sciences (Institut für Psychologie und Psychotherapie der Technischen Universität)
www.psychologie.tu-dresden.de/klinische

Institute for Social Work and Social Education (Institut für Sozialarbeit und Sozialpädagogik, ISS) in Frankfurt/M
www.iss-ffm.de

Institute for Therapy Research (IFT) in Munich.
www.ift.de

North Rhine-Westphalia Addiction Research Association (NRW)
www.suchtforschungsverbund-nrw.de

Northeast Addiction Research Association
<http://www.medizin.uni-greifswald.de/epidem/forschung/intervention/earlint.html>

Platform of Competence for Research on Addictions at the North Rhine-Westphalian Catholic University of Applied Science)
http://www.kfhnw.de/koeln/forschung/sp_auto_1242.php

Saxony/Bavarian Addiction Research Association (ASAT)
www.asat-verbund.de

5.11 Greece

Minister for Health and Social Solidarity
www.mohaw.gr (under construction, will be opening soon)

Ministry of Development
www.gsrt.gr

KETHEA, drug-free treatment centre
www.kethea.gr

General Secretariat of Research and Technology of the Ministry of Development:
OKANA, Research and Evaluation Department
www.okana.gr

Pedagogical Institute, Ministry of Education
www.ypepth.gr

UMHRI, University Mental Health Research Institute
<http://www.ypepth.gr/>

University of Athens

Appendix 2.1

<http://uoai.gr/uoaiindex.htm>

University of Thessaloniki

www.uoi.gr

5.12 Hungary

Ministry of Health

www.eum.hu

Ministry of Education and Culture

www.okm.gov.hu

5.13 Ireland

Department of Health and Children

www.dohc.ie

Department of Education and Science

www.education.ie

Addiction Research Centre at Trinity College Dublin

<http://www.socialwork-socialpolicy.tcd.ie/units/addiction.php>

Alcohol and Drug Research Unit (ADRU), of the Health Research Board

<http://www.hrb.ie/health-information-in-house-research/alcohol-drugs/>

Merchants Quay Ireland (MQI) Research Department

www.mqi.ie

National Advisory Committee on Drugs

www.nacd.ie

5.14 Italy

Ministero del Lavoro, della Salute e delle Politiche Sociali

www.ministerosalute.it

Ministero dell'Università e della Ricerca

www.miur.it

5.15 Latvia

Ministry of Health of the Republic of Latvia

www.vm.gov.lv

Ministry of Education and Science

<http://izm.izm.gov.lv>

Institute of Philosophy and Sociology at the University of Latvia (IPHS)

<http://www.lu.lv/eng/general/structure/institutes/philosophy.html>

5.16 Lithuania

Ministry of Health

www.sam.lt

Ministry of Education and Science of the Republic of Lithuania

Appendix 2.1

www.smm.lt

5.17 Luxembourg

Ministère de la Santé

www.ms.etat.lu

Central Service of Statistics and Economic Studies (STATEC)

www.statec.public.lu

National Prevention Centre for Drug Addiction (CePT)

www.cept.lu

Public Research Health Centre (CRP-Santé)

www.crp-sante.lu

5.18 Malta

Ministry for Social Policy

www.msp.gov.mt

National Agency against Drug and Alcohol Abuse

<http://www.sedqa.gov.mt>

Department of Health Promotion

www.sahha.gov.mt

Department of Public Health

www.health.gov.mt

Department of Health Information.

www.sahha.gov.mt

Department of Biomedical Sciences within the Faculty of Medicine and Surgery at the University of Malta

<http://www.um.edu.mt/umms/ms/index.html>

Department of Psychology and the Department of Youth and Community Studies within the Faculty of Education at the University of Malta

<http://www.um.edu.mt/educ>

5.19 The Netherlands

Ministry of Health, Welfare and Sport

www.minvws.nl/

Ministry of Education, Culture and Science

www.minocw.nl/

Amsterdam Institute for Addiction Research (AIAR) in the University of Amsterdam

<http://www.aiar.nl/>

Bureau Driessen (methadone maintenance studies);

www.bureaudriessen.nl

CVO Research, Education, Training, Consultancy, Cooperation (CVO)

<http://www.drugresearch.nl/en/AboutCvo>

Institute for Criminology, University of Amsterdam

Appendix 2.1

<http://www.jur.uva.nl/criminologieuk/object.cfm>

Intraval (evaluation projects on demand and harm reduction, policy evaluation; prevalence estimates).
www.intraval.nl

National Drug Monitor (NDM)

<http://www.onderzoekinformatie.nl/en/oi/nod/onderzoek/OND1299990/>

Netherlands Institute of Mental Health and Addiction (Trimbos-instituut)

www.trimbos.nl/

Netherlands Organisation for Health Research and Development (ZonMw)

www.zonmw.nl

Nijmegen Institute for Scientist-Practitioners in Addiction (NISPA)

www.nispa.nl

Regioplan Stad en Land (evaluation of drug policy);

www.regioplan.nl

Scientific Bureau on Lifestyle, Addiction and Related Social Developments (IVO)

www.ivo.nl

Erasmus University Rotterdam

www.eur.nl

Institutes of Psychology, of Health Policy and Management, and of Psychology,

<http://www.eur.nl/fsw>

Groningen University

www.rug.nl

- Department of Sociology

<http://www.rug.nl/soc/index>

Leiden University, Medical Centre

www.lumc.nl

- Department of Psychiatry

Maastricht University

www.unimaas.nl

- Departments of Psychiatry and Neuropsychology; of Experimental Psychology, of Neurocognition, Brain and Behaviour, the Experimental Psychopharmacology Unit,
- Health Care Sciences, Section Medical Sociology,

Radboud University Nijmegen, Medical Centre

<http://www.umcn.nl/scientist/>

- Departments of General Practice and Family Medicine, of medical Technology Assessment, and of Clinical Psychology,
- Department of Psychiatry,

University of Amsterdam

www.vu.nl

- Amsterdam School for Social Science Research (ASSR)

www.assr.nl

- Academic Medical Centre: Departments of Clinical Epidemiology and Biostatistics, Human Retrovirology, Nuclear Medicine, Psychiatry, <http://www.amc.uva.nl/>
- Graduate School of Neurosciences, Department of Radiology,

VU University Amsterdam

Appendix 2.1

www.vu.nl/

- University Medical Centre: Department of Psychiatry, Department of Biological Psychology, Institute of Extramural Medicine,
- Department of Clinical Psychology, VU University Amsterdam,

Utrecht University

www.uu.nl/

- University Medical Centre, Rudolf Magnus Institute of Neuroscience, Department of Psychiatry,
 - Julius Centre for Health Sciences and Primary Care,
- www.juliuscenter.nl/

5.20 Poland

Ministry of Health

www.mz.gov.pl

Ministry of Science and Higher Education

www.eng.nauka.gov.pl

Institute of Psychiatry and Neurology

<http://www.entermentalhealth.net/members/warsaw.html>

National Institute of Hygiene

www.pzh.gov.pl

National Bureau for Drug Prevention

www.narkomania.gov.pl

Public Opinion Research Centre

http://www.cbos.pl/EN/About_us/about.shtml

TNS OBOP

www.tns-global.pl

5.21 Portugal

Ministry of Health

www.sg.min-saude.pt

Abel Salazar Biomedical Sciences Institute, an autonomous research unit of the University of Porto;

http://sigarra.up.pt/icbas/web_page.inicial

CEOS at the School of Social and Human Sciences (FCSH) of the New University of Lisbon;

www.unl.pt

<http://www.fcsh.unl.pt/>

CIES at the Institute of Business and Labour Sciences (ISCTE) in Lisbon;

<http://iscte.pt/>

Institute on Drugs and Drug Abuse (IDT), at the Ministry of Health

www.idt.pt

School of Human Kinetics (FMH) at the Technical University of Lisbon;

www.utl.pt

School of Medicine at the University of Coimbra;

www.ci.uc.pt

Appendix 2.1

School of Psychology and Educational Sciences (FPCE) at the Porto University;
www.up.pt

5.22 Romania

Ministerul Sanatatii Publice
<http://www.ms.ro/>

Ministry of Education, Research and Youth (Ministerul Educatiei, Cercetarii si Tineretului)
www.edu.ro

Evaluation and Treatment Centre for Young Drug-addicted People Sf. Stelian
<http://www.sfstelian.ro>

Faculty of Pharmacy within the University of Medicine and Pharmacy Carol Davila in Bucharest
www.uni-davila.ro

National Anti-drug Agency
www.ana.gov.ro

National Commission for the Fight against AIDS
<http://www.cnlas.ro>

National Research-Development Institute Victor Babes, CMMSR
http://www.vbabes.ro/index_en.htm

Romanian Angel Appeal, RAAA
<http://www.raa.ro>

ROMTENS Foundation
www.romtens.ro

Save the Children
<http://www.salvaticopiii.ro>

5.23 Slovakia

Ministry of Education of the Slovak Republic
www.minedu.sk

Ministry of Education of the Slovak Republic
www.minedu.sk

Civil association People in Need (Člověk v tísni)
<http://www.mvro.sk/association-for-people-in-need-in-africa-volunteering.html>

Community Foundation in Prešov
www.knpresov.sk

Faculty hospitals:

- The psychiatric clinic and the children's psychiatric clinic of the Faculty of Medicine of Comenius University in Bratislava www.uniba.sk
- The children's psychiatric clinic of the Faculty of Medicine in Bratislava and the Children's Faculty Hospital and Medical Centre in Bratislava www.fmed.uniba.sk

FÍLIA n.o. Košice
www.filia.sk/

Appendix 2.1

Institute of Drug Dependencies at the Centre for the Treatment of Drug Dependencies in Bratislava
http://www.drogy.sk/cpldz/idz_e.htm

Institute of Information and Prognoses of Education
www.skvc.lt

Open Society Foundation
<http://www.osf.sk/>

Slovak Academy of Sciences (SAS)
www.sav.sk

Slovak Medical University (SMU)
www.szu.sk

- The National Reference Centre for the Treatment of Chronic Hepatitis
- The National Reference Centre for the Prevention of HIV/AIDS
- The National Reference Centre for Viral Hepatitis

Universities

- The Faculty of Pharmacy at Comenius University (Department of Chemical Theory of Drugs and the Toxicology and Antidoping Centre) www.uniba.sk
- Faculty of Humanities at Matej Bel University in Banská Bystrica www.umb.sk
- Faculty of Natural Sciences at Žilina University in Žilina www.fpv.uniza.sk
- The Pedagogical Faculty of Prešov University in Prešov www.ff.unipo.sk
- P. J. Šafárik University in Košice <http://www.upjs.sk/uk/>
- The Pedagogical Faculty of Matej Bel University in Banská Bystrica
- The Faculty of Natural Sciences of Matej Bel University in Banská Bystrica
- The Faculty of Arts of Prešov University in Prešov
- University of SS. Cyril and Methodius in Trnava www.ucm.sk
- Faculty of Arts of Prešov University <http://www.upjs.sk/en/actualities/faculty-of-arts>

5.24 Slovenia

Ministry of Health
www.mz.gov.si

Minister of Higher Education, Science and Technology
www.mvzt.gov.si

Institute of Public Health of the Republic of Slovenia
<http://www.ist-world.org/OrgUnitDetails.aspx?OrgUnitId=c68e44ed15c240eaaf5710a118295e0b>

5.25 Spain

Ministerio de Sanidad y Consumo
www.msc.es

Ministry of Education and Science of Spain
www.mec.es

Cajal Institute CSIC

Appendix 2.1

www.cajal.csic.es

Carlos de Haya Foundation, Málaga

www.carloshaya.net

Centro de Investigación Príncipe Felipe de Valencia

www.cipf.es

Euskal Herriko Unibertsitatea

<http://www.ehu.es>

Health Sciences School of Pompeu Fabra University Facultat de CC de la Salut. Universitat Pompeu Fabra

<http://www.upf.edu/en/index.shtml>

Hospital Germans Trias I Pujol

www.germanstrias.org

Human and Social Sciences School of Jaume I Cajal University. CSIC

<http://www.csic.es/index.do>

IMABIS Foundation. Málaga

<http://www.imabis.org/default.aspx?lang=en-us>

IMIM Hospital del Mar. Barcelona

www.imim.es

National Center for Epidemiology. ISCIII

www.isciii.es

Pharmacology. IMIM. Barcelona

www.imim.es

Pharmacology. University of Valladolid

www.universityofvalladolid.uva.es

Prince Felipe Research Center

www.cipf.es

Psychiatric Service. Hospital Vall d'Hebrón

www.vhebron.es

Research group of the Public Health Agency of Barcelona

Agència de Salut Pública

www.aspb.es

School of Human and Social Sciences. Jaume I University

www.uji.es

School of Medicine of Miguel Hernández University

www.umh.es

School of Medicine of the University of Seville

www.us.es

School of Medicine of the University of Valladolid

www.universityofvalladolid.uva.es

School of Medicine. Complutense University of Madrid

School of Psychology of the Complutense University

www.ucm.es

Appendix 2.1

School of Medicine. University of Cantabria
www.unican.es

School of Psychology of the UNED
School of Psychology. UNED RT15
www.uned.es

School of Psychology of the University of Valencia
www.uv.es

School of Sciences. Autonomous University of Barcelona
www.uab.es

5.26 Sweden

Ministry of Health and Social Affairs
www.msc.es

Ministry of Education and Research
www.sweden.gov.se

5.27 United Kingdom

Department of Health
www.dh.gov.uk

Community Safety Division of the Welsh Assembly Government's Department for Social Justice and Local Government
<http://new.wales.gov.uk/about/departments/dsijg/?lang=en>

Crime and Drugs Analysis and Research., Home Office
<http://www.homeoffice.gov.uk/rds/drugs1.html>

Drug and Alcohol Information and Research Unit within DHSSPSNI
http://www.dhsspsni.gov.uk/statistics_and_research-drugs_alcohol-2

Health Promotion Agency
www.healthpromotionagency.org.uk

National Drug Evidence Centre at the University of Manchester
<http://www.medicine.manchester.ac.uk/ndec/>

Office for Science and Technology (OST), former Department for Trade and Industry (DTI)
www.ostina.org

Department for Health, Social Services and Public Safety Northern Ireland (DHSSPSNI): The Alcohol and Drugs Policy Branch (ADPB)
www.dhsspsni.gov.uk

The Drug Misuse Research Initiative (DMRI)
<http://www.mdx.ac.uk/www/drugsmisuse/>

The National Treatment Agency (NTA)
www.nta.nhs.uk

Addictions Research Group, Keele University
www.keele.ac.uk

Birmingham Alcohol, Drugs, Gambling & Addiction Group, University of Birmingham

Appendix 2.1

www.addictions.bham.ac.uk

Centre for Addiction Research & Education Scotland, University of Dundee

www.dundee.ac.uk

Centre for Drug Misuse Research, University of Glasgow

www.gla.ac.uk/drugmisuse

Centre for Drugs & Health Behaviour, London School of Hygiene & Tropical Medicine

www.lshtm.ac.uk

Centre for Public Health, Liverpool John Moores University

www.cph.org.uk

Department for Health Science, University of York

www.york.ac.uk/healthsciences

Department of Addictive Behaviour, St. George's, University of London

www.mbland.sghms.ac.uk

Drug & Alcohol Research Group, Middlesex University

www.mdx.ac.uk/hssc/research/centres/sprc/drug.asp

International Centre for Drugs Policy St. George's, University of London

www.sgul.ac.uk/depts/icdp/icdp_home.cfm

Mental Health Research and Development Unit, University of Bath

www.bath.ac.uk/health/mhrdu

National Addiction Centre, Kings College London

<http://www.iop.kcl.ac.uk/departments>

National Drug Evidence Centre, University of Manchester

<http://www.medicine.manchester.ac.uk/healthmethodology/research/ndec/>

Oxford Substance Misuse Research Group, Oxford Brookes University

<http://shsc.brookes.ac.uk/research/substance-misuse>

Scottish Addiction Studies, University of Stirling

www.dass.stir.ac.uk/sections

Appendix 2.1**6. Websites in other countries****Norway**

Ministry of Children and Family Affairs

<http://www.regjeringen.no/nb/dep/bld.html?id=298>

Ministry of Church Affairs, Education and Research

<http://www.regjeringen.no/kuf/>

Minister of Health and Care Services

<http://www.regjeringen.no/en/dep/hod.html?id=421>

National Institute for Alcohol and Drug Research

<http://www.sifa.no/>

National Institute for Consumption Research

<http://www.sifo.no/>

Bergen Clinics Foundation

www.bergenclinics.no

Institute of Public Health (biomedicine)

www.fhi.no

International Research Institute of Stavanger (IRIS)

www.iris.no

Norwegian Social Research (NOVA)

www.nova.no

SIRUS, independent research institute under the Ministry of Health and Care Services

<http://www.sirus.no>

University of Bergen

www.uib.no

University of Stavanger

www.uis.no

University of Trondheim

www.ntnu.no

Croatia

Croatian Institute for Public Health (HZJZ)

www.hzjz.hr

Institute for Social Research Zagreb (IDI)

www.idi.hr

Institute of Social Sciences "Ivo Pilar" in Zagreb (IDZIP)

www.pilar.hr

Appendix 2.2

List of Interview partners in the MS

MS	Interviewpartner
Belgium	Bruce De Ruyer Department of Criminal Law and Criminology
Czech Republic	Viktor Mravcik Secretariat of the Council of the Government for Drug Policy Coordination, Prague
Finland	Pia Rosenquist Nordic Centre for Alcohol and Drug Research, Helsinki Pekka Hakkarainen National Research and Development Centre for Welfare and Health (STAKES), Helsinki
France	Dominique VUILLAUME MILDT - Interministerial Mission in the Fight against Drugs and Drug Addiction, Paris Henri Bergeron Centre de sociologie des organizations, Paris
Germany	Gaby Kirschbaum Department „Drugs and Substance abuse“ Federal Ministry of Health (BMG), Berlin Karl Mann (ZI Mannheim), Mannheim Hans-Ulrich Wittchen (TU Dresden), Dresden
Ireland	Mairead Lyons National Drug Advisory Board Jean Long Health Research Board
Italy	Marina Davoli Cochrane Collaboration Pier Paolo Panni
Latvia	Ieva Pugule Public Health Agency, Ministry of Health, Riga Marcis Trapencieris Public Health Agency, Ministry of Health, Riga
Netherlands	Els van Gessele & Denice Moi Thuk Shung the Netherlands Organisation for Health Research and Development (ZonMw)
Poland	Jacek Moskalewicz Institut of Psychiatry and Neurology, Warszawa Krzysztof Krajewski Jagiellonian University Department of Criminology, Krakow
Spain	Fernando Rodrigues Fundación IMABIS, Hosp. Univ. Carlos Haya de Málaga, Malaga Rafael Maldonado Laboratori de Neurofarmacologia, Universitat Pompeu Fabra, Barcelona Marta Torrens Municipal Institute for Medical Research (IMIM-Hospital del Mar), Barcelona

Appendix 2.2

MS	Interviewpartner
Sweden	Bjorn Hibell Swedish Council for Information on Alcohol and other Drugs Börje Olsson Centre for Social Research on Alcohol and Drugs (SoRAD)
United Kingdom	Professor John Strang National Addiction Centre, Institut of Psychiatry, Kings College London Professor Gunter Schumann Institute of Psychiatry, Kings College London Gabriel Denvir Home Office Dr Mary Piper Prisons Department of Health

Appendix 2.2

List of Interview partners in EU and international organizations

Organisation	Contact
DG Sanco	Natacha Grenier
WHO	Lars Møller
Pompidou	Christopher Lockett
UNODC	Gilberto Gerra
DG JLS	Maurice Galla
DG RTD	Fergal Donnelly Kevin Mc Carthy Søren Bøwadt
DG ENTR	Clement Williamson
National Focal Points	Alan Lodwick,
EMCDDA	Wolfgang Götz Paul Griffiths Margaretta Nielson Brendan Hughes

Appendix 2.3

National Contact Persons

1. Focal Points

Country	Expert	Position	Institute
Austria	Marion Weigl	Head of Austrian Focal Point	Österreichisches Bundesinstitut für Gesundheitswesen(Austrian Health Institute - ÖBIG)
Cyprus	Neoklis Georgiades	Head of Cypriot Focal Point	National Council on Drugs - Cyprus National Monitoring Center for Drugs and Drug Addiction
	Natasa Savvopoulou	Staff Member of the Cypriot Focal Point	National Council on Drugs - Cyprus National Monitoring Center for Drugs and Drug Addiction
Czech Republic	Victor Mravcik	Head of Czech Focal Point	Secretariat of the Council of the Government for Drug Policy Coordination
Estonia	Ave Talu	Head of Estonian Focal Point	National Institute for Health Development (NIHD)- Department of Epidemiology and Biostatistics- Estonian Drug Monitoring Centre (EDMC)
Finland	Sanna Rönkä	Head of Finish Focal Point	National Research and Development Centre for Welfare and Health (STAKES)
Greece	Manina Terzidou	Head of Greek Focal Point	University of Mental Health Research Institute (UMHRI)
Germany	Tim Pfeiffer-Gerschel	Head of German Focal Point	IFT Institut für Therapieforschung
Hungary	Adrienn Nyírády	Head of Hungarian Focal Point	National Centre for Epidemiology (NCE)
Ireland	Jean Long	Head of Irish Focal Point	Alcohol and Drug Research Unit (ADRU) of the Health Research Board (HRB)
Latvia	Ieva Pugule	Head of Latvian Focal Point	Public Health Agency
Lithuania	Ernestas Jasaitis	Head of Lithuanian Focal Point	Ministry of Health-Drug Control Department under the Government of the Republic of Lithuania
Poland	Artur Malczewski	Head of Polish Focal Point	National Bureau for Drug Prevention under the auspices of the Ministry of Health
Portugal	Ana Sofia Santos	Member of the Portuguese Focal Point	Institute on Drugs and Drug Addiction
Romania	Ruxanda Iliescu	Head of Romanian Focal Point	National Anti-drug Agency
Slovakia	Imrich Steliar	Head of Slovakian Focal Point	National monitoring centre for drugs
Slovenia	Mercedes Lovrecic	Head of Slovenian Focal Point	Institute of Public Health
Spain	Yolanda Nunez	Staff Member of the Spanish Focal Point	Head of Service of Multilateral Relations Government Delegation for the National Plan on Drugs Ministry of Health and Consumer Affairs

Appendix 2.3

2. Other National Contact Persons

Country	Expert	Position	Institute
Belgium	Brice De Ruyver	Director of the Research Group Drug Policy, Criminal Policy and International Crime	University of Ghent
Cyprus	Stelios Stylianou	Associate Professor of Sociology	Department of Social Sciences University of Nicosia
Czech Republic	Ladislav Csémy	Head, Laboratory of Social Psychiatry	Prague Psychiatric Centre
	Michal Miovski	Head of Center for Addictology	Psychiatric clinic, Faculty of Carles University in Prague
Denmark	Mads Uffe Pedersen	Director, Centre for Alcohol and Drug Research	University of Aarhus
Finland	Pia Rosenquist	Director	Nordic Centre for Alcohol and Drug Research (NAD)
France	Dominique Vuillaume	Coordinateur du pôle Recherche	MILDT - Interministerial Mission in the Fight against Drugs and Drug Addiction
	Henri Bergeron	Scientific coordinator of the Chair in Health Studies	Sciences Po Paris - Fondation Nationale des Sciences Politiques
Germany	Gaby Kirschbaum	Department of Drugs	Federal Ministry of Health
	Karl Mann	Director	Zentral Institut für Seelische Gesundheit
Greece	Manina Terzidou	Head of Greek Focal Point	University of Mental Health Research Institute (UMHRI)
Hungary	Zsolt Demetrovics		Addiction Research Unit, Eotvos Lorand University, Budapest
Italy	Marina Davoli	Director	Dipartimento di Epidemiologia
Netherlands	Prof. Wim van den Brink	Director	Amsterdam Institute for Addiction Research (AIAR)
	Ruud Bless	Consultant on Information Systems and Policy Research	Quinx Research
	Els van Gessele	Programme Officer, Risk Behaviour and Dependency	ZonMw
Poland	Jacek Moskalewicz		Institute of Psychiatry and Neurology
	Krzysztof Krajewski	Professor for Criminology	Jagiellonian University
Slovakia	Olga Orosova	Vice-dean for academic affairs	University PJ Šafárik in Košice Department of Educational Psychology and Health Psychology
Sweden	Börje Olsson		The Centre for Social research on Alcohol and Drugs (SoRAD)
UK	Annette Dale Perera	Director of Quality	National Treatment Centre

Appendix 2.4

Project Advisory Group

Ruud Bless, M.A., Director of Quinx Research, Netherlands
Expert for research funding and funding strategies

Henri Bergeron, Ph. D. in sociology, research fellow at the Centre National de la Recherche Scientifique (CNRS), Fondation Nationale des Sciences Politiques (FNSP), Paris, France
Expert for drug policy research

Marina Davoli, M.D., Director of the Unit "Clinical Epidemiology", Department of Epidemiology, Regional Referral Centre for Epidemiology, Rome, Italy
Expert for research on treatment outcome

Brice de Ruyver, Doctor in criminology, Professor at the University of Ghent, Director of the Institute for International Research on Criminal Policy (IRCP), Belgium
Expert for research on drug markets

Krzysztof Krajewski, M.A. sociology, Professor for Criminology, Jagiellonian University, Krakow, Poland
Expert for research on criminology and law enforcement

Minerva Melpomeni Malliori, M.D., Ph. D, Assistant Professor of Psychiatry, University of Athens, Greece
Expert for best practices-proposals to policy makers

Jacek Moskalewicz, Head, Department of Studies on Alcohol and Drug Dependence, Institute of Psychiatry and Neurology (IPN), University of Warsaw, Poland
Expert for social research and treatment system research

Börje Olsson, Ph. D. in Sociology, Professor, Centre for Social Research on Alcohol and Drugs (SoRAD), University of Stockholm, Sweden
Expert for drug control policies, criminological and sociological research

Pia Rosenquist, Ph. D. in Sociology, Head of Secretariat, Nordic Centre for Alcohol and Drug Research (NAD), Helsinki, Finland
Expert for research on drug taking practices, drug culture and drug policy

Dike van de Mheen, Dr., Director Research and Education, IVO Addiction Research Institute, Rotterdam, Netherlands
Expert for: Research on epidemiology and on minimal interventions

Hans-Ulrich Wittchen, Ph. D. in psychology, Director of the Institute of Clinical Psychology and Psychotherapy, Technical University of Dresden and Consultant Head of the Unit Psychology and Epidemiology at the Max-Planck-Institute of Psychiatry, Munich, Germany
Expert for Epidemiology and Aetiology of Drug Use.

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AUSTRIA

Summary

It could be said that drug-related research in Austria is characterised by great diversity and little planning; whereas the initiatives of individual institutions and researchers play an important role. This is mainly due to the fact that a general (at national and provincial level) research strategy or coordinating body for the field of drugs and addiction does not exist. There is also no specific institution responsible for centralised allocation of means for these issues. Drug-related research is included in the general structure of research promotion in Austria. Research funding is undertaken by the Federal Ministries as well as by major institutions who accept relevant applications.

History of strategic development and vision behind the development of research capacity and funding structure in the field of (drug) addiction

In general, in Austria in the field of drug-related research there is great diversity and little planning. The initiatives of individual institutions and researchers play a significant role. Moreover, there is an important distinction between research contracts and funded research. Research contracts are mainly awarded by the federal government (e.g., consumption surveys in the general and school population) or the provincial governments (e.g., evaluation studies, demand surveys). Research funding is applied on the other hand for research institutes and individual researchers. No established structures exist to cultivate the interaction between politics, practice and research; nonetheless, especially with regard to commissioned research, decisions are influenced by research results. There is no general research strategy or coordinating body for the field of drugs and addiction - neither at national nor at provincial level (EMCDDA Austrian National Report, 2007).

Future strategic approaches aimed at building research capacity and funding infrastructure

Austria has no national (federal) drug strategy or action plan; nonetheless the development of a strategy is currently in progress. As such it could be assumed that for the moment no officially stated strategic approaches exist.

RESEARCH TOPICS AND INFRASTRUCTURE

Key research structures involved at country level

In Austria there are two interdisciplinary research institutes specifically dedicated to the issue of addiction. The Ludwig Boltzmann Institute of Addiction Research (LBI Sucht) is based on a cooperation between the Anton Proksch Institute, which is the largest therapy centre assisting persons addicted to alcohol and/or drugs in Austria, and the Ludwig Boltzmann Society, an umbrella organisation with the aim of promoting scientific research in Austria. The Addiction Research Institute was established as a branch of the University of Innsbruck in 1990 and is based at the treatment centre for addiction patients Maria Ebene hospital in Vorarlberg.

At university level drug-related research is mainly found in the medical field of hospitals. The Hospitals of Psychiatry of the Universities of Vienna and Innsbruck should be mentioned in this context as centres of continuous substitution-specific research. Single projects in the field of basic research into social issues may be found at university departments dedicated to social studies.

Individual drug help services, e.g., ChEck iT!, are also committed to questions that are relevant for research, and to a growing extent, private institutes in the field of drug-related research accept contracts as well. Gesundheit Österreich GmbH / Austrian Health Institute (GÖG/ÖBIG) also carries out research in the context of drugs and addiction.

Based on the study's desk work most drug related research projects in Austria are conducted at universities or, at public/governmental organisation, for example the Ludwig Boltzmann Institute for the Sociology of Health and Medicine of the University of Vienna, the University Hospital of Psychiatry at the University of Innsbruck, the European Institute for Social Services or the Institute for the Sociology of Law and Criminal Sociology.

Key research areas

A total of five research projects were identified that meet the inclusion criteria of the study. The research topics of the projects are: "Epidemiology", "Drug mechanisms, effects and methods of detection", and "Policy".

Research area	Sub-topic	Projects	Substances
1. Drug mechanisms, effects and methods of detection	1.1 Mechanisms of action	1	Multiple illegal substances (1)
3. Epidemiology	3.1 Population based	3	Combined legal and illegal substances (3)
5. Policy	5.1 Domestic Drug Policy	1	Multiple illegal substances (1)

Appendix 3.1

Country Report: Austria

Research publications/visibility

A total number of 18 scientific publications could be identified for the years 2001/2002 as well as 31 publications for the years 2005/2006 meeting the present study's inclusion criteria. Most papers can be categorised as "Clinical and research assessments" addressing mainly pharmacological aspects. Moreover, epidemiological studies and reviews have been published in Austria.

Research area	Year of publication							
	2001		2002		2005		2006	
	P*	C**	P	C	P	C	P	C
A Basic Brain Science	1	42			1	11	1	7
B Epidemiology and surveys	4	45			1	4	6	17
C Clinical and research assessments	4	60	4	120	6	80	4	21
D Prevention					1	3		
E Demand and harm reduction	1	5	1	16	4	33	2	26
F Criminological and drug supply								
G Policy and Legal frameworks								
H Reviews	1	15	2	5	3	12	2	3
Total	11	167	7	141	16	143	15	74

* No of publications

** No of citations

FUNDING STRUCTURE**Funding agencies and research budgets**

At federal level, apart from research funding by the Federal Ministries there are major funding institutions that accept applications of drug-related research projects according to their focus. One example is the Austrian Research Promotion Agency (FFG)¹, the central organisation for the promotion of research and innovation in this country. The Austrian Science Fund (FWF) is Austria's central institution for the promotion of basic research. The Österreichische Nationalbank (OeNB), the central bank of the Republic of Austria, in 1966 founded the Jubilee Fund for the promotion of academic research and teaching. The means are awarded for scientific projects of high quality in the fields of economic studies, medical science, social sciences and humanities. Especially in the field of health, the Healthy Austria Fund (GÖG/FGÖ) also finances application-oriented research projects and studies on the further development of health promotion and comprehensive primary prevention, as well as epidemiology, evaluation and quality assurance in these areas. Other sponsors of addiction- and drug-related research can be found at the level of provinces and in the promotion programmes of the European Union (EU). The multiplicity of structural levels involved (federal and provincial levels,

¹ www.ffg.at

Appendix 3.1**Country Report: Austria**

EU level) and the great variety of research funding sources make it difficult to survey the sphere of research promotion in Austria.

Because of the great number of funding institutions, no funding figures could be given, neither for research in general nor for drug-specific research.

Three out of the five projects identified by our desk work were funded by national public agencies. One project received funding from the European Commission. Specific research budgets are not available.

Coordination of research funding

In Austria there is no specific institution competent for centralised allocation of means for drug or addiction-relevant issues. Therefore drug-related research is included in the general structure of research promotion. In the field of basic research, competence mainly lies with the federal authorities.

Priorities

Due to the lack of a national (federal) drug strategy or action plan (please see section “Future strategic approaches aimed at building research capacity and funding infrastructure”) it could be presumed that no official national or federal priorities in the field have been declared.

In this sense, the areas of interest of the two research institutes working on addiction issues (see also “Key research structures involved at country level”) could probably be indicative of the drug research priorities. By way of illustration the research in the framework of the LBI Sucht focuses on epidemiology, drug-specific problem areas (e.g., traffic safety), drug policy, social history, evaluation research, studies on addiction treatment and prevention as well as papers dealing with statistics and methodology. In recent years there were increased research activities within the framework of international studies in the field of evaluation of primary prevention. Research undertaken by the Addiction Research Institute focuses on physical, psychological and social disorders and diseases in the context of alcohol, nicotine, illicit drugs and psychotropic substances (EMCDDA Austrian National Report, 2007).

BELGIUM

Summary

Research into the prevention and treatment of illicit drug use and the effects of drug misuse within existing cultural and social contexts is well established in Belgium. However, there is ongoing emphasis on security related funding which continues to restrict funding for research into the development of demand reduction initiatives and associated evaluation work. Research coordination is equally divided between the Federal government and the federal entities. A clear current priority is to develop a viable funding infrastructure which promotes capacity building projects such as development and epidemiological research and which leads to better informed drugs related policy.

History of strategic development and vision behind the development of research capacity and funding structure in the field of (drug) addiction

The Belgium federal drug strategy has acted as the main central mechanism for funding research since 2001, although there is no formal “structural financing”. Historically, there has been a first priority to evaluate existing prevention and treatment programmes - with a focus on the delivery of treatment programmes and special populations and a desire to support longitudinal research on the natural history of cannabis use of clinical, social and economic effectiveness. A second priority has been to study the social and community context and “experience” of drug misuse (e.g. understanding perceptions of drug problems by local communities in terms of the extent of tolerance and the role of local social and administrative services organisations in tackling the problem).

Today, the national drugs strategy for Belgium refers to all types of substances and is underpinned by a public health and crime reduction approach, founded on recommendations of a parliamentary working group. There is a federal organization of research through central contracts (under the headings of health, security and international affairs) with the university network and other research product providers. Central coordination of public health research is undertaken by a federal drugs health policy unit and this interfaces with the Federal Science Policy Office. There is ongoing monitoring of research studies by the national REITOX Focal Point.

Future strategic approaches aimed at building research capacity and funding infrastructure

A central perceived priority is to move away from short-term funding of research towards a more strategic and capacity building approach which can stimulate research infrastructure and continuity of effort and goals.

RESEARCH TOPICS AND INFRASTRUCTURE

Key research structures involved at national level

The Universities of Antwerp, Brussels and Gent are notably active in the research arena. Specialist medical departments are also involved in the development of research projects. Examples of medical departments and research centres which have been active in the research field are as follows:

- Laboratoire de Toxicologie clinique, University of Liège,
- Laboratorium voor Toxicologie, Universiteit Gent,
- Laboratorium voor Farmaceutische en Biomedische Analyse, Vrije Universiteit Brussel,
- Laboratory of Medical Biochemistry and Toxicology, Ghent University,
- Laboratory of Pharmaceutical and Biomedical Analysis, Vrije Universiteit Brussel,
- Department of Epidemiology and Toxicology, Institute for Hygiene and Epidemiology, Brussels,
- Laboratoire de Psychologie Médicale Alcoolologie et Toxicomanies, Brussels ,
- Department of Orthopedagogics, Ghent University,
- Department of Psychiatry, CHU Brugmann Brussels,
- Laboratory of Statistics, School of Public Health, Free University of Brussels,
- Department of General Practice, Katholieke Universiteit Leuven,
- Centre for the Evaluation of Vaccination - WHO Collaborating Centre, Department of Epidemiology and Social Medicine, Universitaire Instelling Antwerpen,
- Laboratory of Toxicology, Ghent University,
- Laboratory for Medical Biochemistry and Clinical Analysis, Ghent University,
- Laboratory of Pharmaceutical and Biomedical Analysis, Free University of Brussels,
- Department of Psychiatry, University Hospital Gasthuisberg, B-3000 Leuven, Belgium,
- Collaborative Antwerp Psychiatric Research Institute (CAPRI), University of Antwerp,
- Department of Radiology and Medical Imaging, Université catholique de Louvain, Brussels,
- Pharmacy Practice Research Centre, Katholieke Universiteit Leuven.

Appendix 3.1

Country Report: Belgium

Key research areas

A total of 11 research projects were identified that meet the inclusion criteria of our study.

Research area	Sub-topic	Projects	Substances
3. Epidemiology	3.1 Population based	3	Combined legal and illegal substances (3)
	3.2 Clinical target groups	3	Cannabinoids (1), Cocaine (1), Multiple illegal substances (1)
4. Intervention	4.3 Treatment	2	Cannabinoids (1), Substance not specified (1)
8. Interdiction	8.4 Trafficking	1	Opioids (1)
	8.8 Security issues	1	Combined legal and illegal substances (1)
	8.9 CJS initiatives	1	Multiple illegal substances (1)

Research publications/visibility

A total of 90 publications were identified as meeting the inclusion criteria in all four years. For all years “basic brain research” and “epidemiology or survey research reports” were the types of publication most frequently identified. However, more notable is the lack of any publication reports on universal prevention projects and the very limited number of “policy and legal” or “criminological and drug supply” publications and associated citations. The “review” papers identified across the four years predominately focused on related clinical disorders or treatment related issues.

Research area	Year of publication							
	2001		2002		2005		2006	
	P*	C**	P	C	P	C	P	C
A Basic Brain Science	3	15	4	39	5	31	3	14
B Epidemiology and surveys	2	6	5	91	7	41	4	20
C Clinical and research assessments	9	87	11	232	9	91	5	21
D Prevention								
E Demand and harm reduction	1	3	1	13	2	8	3	13
F Criminological and drug supply	1	2	1	1				
G Policy and Legal frameworks								
H Reviews	1	5	1		6	69	6	40
Total	17	118	23	376	29	240	21	108

* No of publications

** No of citations

FUNDING STRUCTURE

Funding agencies and research budgets

The structural background for all domestic and international scientific research studies in all areas is the Federal Science Policy Office. From 1/1/2002 a total budget of 910,000 € has been allocated for research in drug misuse with 34 projects commissioned. A multi-departmental committee spanning Federal Public Services: Health, Food Chain Security and Environment, Social Security, Justice and Home Affairs has overseen the process of project selection and commissioning.

Coordination of research funding

Research coordination is equally divided between the Federal government and the federal entities. Most research is commissioned by the Federal Science Policy Office.

Priorities

A key identified priority is to create a research infrastructure which can support basic epidemiological surveys and studies of the delivery and effects of prevention and treatment programmes. Products from research should have an applied focus to inform policy development and evaluation. The recently completed Belgian National Security Plan (2004-2007) has prioritised countermeasures to control the domestic manufacture and distribution of illicit synthetic drugs, as well as a focus on tackling the importation of cocaine and further exportation of heroin from within the borders to other nations. There is recognition that a traditional emphasis on security-related research funding has overshadowed allocation of research resources for studies on primary and secondary demand reduction work. These latter areas remain "poorly funded" and there are signs of a reduction in funding (EMCDDA Belgian National Report on Drugs, 2007).

BULGARIA

Summary

Based on the predefined working procedure for the compilation of the national Country Reports, only little information could be gathered with regard to the situation in Bulgaria; whereas no feedback by national experts has been received. The information derives exclusively from the present study's desk work and it could be considered as an indication that drug-related research is probably underdeveloped. The one research project identified meeting the study's criteria was in the field of epidemiology; the four scientific articles were in the field of clinical and research assessments, of epidemiology and of demand and harm reduction

History of strategic development and vision behind the development of research capacity and funding structure in the field of (drug) addiction

Relevant information is not available.

Future strategic approaches aimed at building research capacity and funding infrastructure

Relevant information is not available.

RESEARCH TOPICS AND INFRASTRUCTURE

Key research structures involved at country level

Based on the desk work, the research project that could be identified and met the inclusion criteria of the study was conducted at a public/governmental organisation.

Key research areas

One project in the field of "Epidemiology" could be identified for Bulgaria meeting the inclusion criteria of the present study.

Research area	Sub-topic	Projects	Substances
3. Epidemiology	3.1 Population based	1	Combined legal and illegal substances (1)

Appendix 3.1**Country Report: Bulgaria****Research publications/visibility**

Four scientific articles have been published in Bulgaria in the years 2002 and 2006 in accordance with the present study's inclusion criteria. These papers were in the field of clinical and research assessments, of epidemiology and of demand and harm reduction.

Research area	Year of publication							
	2001		2002		2005		2006	
	P*	C**	P	C	P	C	P	C
A Basic Brain Science								
B Epidemiology and surveys			1	1				
C Clinical and research assessments			1	2			1	1
D Prevention								
E Demand and harm reduction							1	7
F Criminological and drug supply								
G Policy and Legal frameworks								
H Reviews								
Total			2	3			2	8

* No of publications

** No of citations

FUNDING STRUCTURE**Funding agencies and research budgets**

Relevant information is not available.

Coordination of research funding

Relevant information is not available.

Priorities

Relevant information is not available.

CYPRUS

Summary

It could be said that research and specifically drug-related research in Cyprus is not so developed. The first initiatives in the field took place in the 90's with a focus on epidemiology. Until today there is no specific coordination or funding mechanism for drug-related research; rather funding is provided upon request and with regard to the study's topic. The role of the National Focal Point has been proven significant, since after its establishment, in 2004, it has stimulated drug-related research; moreover it collects relevant data on a regular basis.

History of strategic development and vision behind the development of research capacity and funding structure in the field of (drug) addiction

The field of research and specifically drug-related research in Cyprus is underdeveloped. In the 90's an NGO took the initiative and began contacting some prevalence studies. As the NGO's resources were limited and the studies results were worrisome the particular NGO started cooperation with the Ministry of Education aiming at estimating drug use prevalence among the school population. Thus, until 2004 drug-related research was done by NGO's and was mainly focused on prevalence. In 2004, after the establishment of the Focal Point, related research was stimulated by the FP's reports and the Anti-drugs Council decided on and provided funding for a series survey on drug use prevalence in the general population. Until today there is no specific coordination or funding mechanism for drug-related research.

Future strategic approaches aimed at building research capacity and funding infrastructure

There are no research studies planned or funding availability known since the Antidrug Council and the Cyprus Research Promotion Foundation provide funding upon request and based on the topic under study. However, the Antidrug Council had recently provided limited funding for a study related to infectious diseases and HIV drug use. Further, the NFP in cooperation with the Drug Law Enforcement Unit of the Cyprus Police is contacting a study involving the drug related crime history among arrestees. However, the research capacity as well as funding availability is considered limited.

RESEARCH TOPICS AND INFRASTRUCTURE

Key research structures involved at country level

Drug-related research in Cyprus is carried out by colleges and educational institutions as well as occasionally by the Cyprus Antidrug Council, under the supervision of the Cypriot National Focal Point of the EMCDDA. The FP constitutes also a nodal agency in the field of drug-related research, since it requests from all relevant bodies, ministries, organisations, etc. to submit every item of research they carry out in order to collect all the drug-related information available for its records and to get advance knowledge of these data for further research. By way of illustration, Cyprus Centre for European and International Issues, which is hosted at the University of Nicosia (and previously called Research and Development Centre of Intercollege), the Institute for Social Innovation and the NGO KENTHEA have recently been involved in drug-related research projects. The Ministry of Education and Culture is also a significant player in drug-related research in school population.

Based on the study's desk work, drug-related research in Cyprus is mainly carried out in public/governmental organisations and at universities, i.e. the Ministry of Education and Culture and the Research and Development Centre of Intercollege.

Key research areas

A total of 5 research projects were identified that meet the inclusion criteria of the present study. They are classified under the research topic "Epidemiology".

Research area	Sub-topic	Projects	Substances
3. Epidemiology	3.1 Population based	5	Combined legal and illegal substances (4), Multiple illegal substances (1)

Research publications/visibility

Based on the study's inclusion criteria, no publication could be identified for Cyprus.

FUNDING STRUCTURE

Funding agencies and research budgets

The main funding frameworks in the country are the government and national agencies as the Cyprus Research Promotion Foundation, an independent organization with a Board of Directors appointed by the Council of Ministers and the Cyprus Antidrug Council (responsible for the drafting and monitoring of the implementation of the National Strategy for Drugs) that is also funding drug-related research projects. As regards the size of available funds, this depends largely on the scale and the magnitude of the research. Moreover, the Cyprus Youth Board has supported a few small scale studies.

The funding agency and research budgets for three out of the five identified epidemiological projects in Cyprus could not be identified. The remaining two studies were financed by national public agencies with a total amount of 24,000 and 43,000 €.

Coordination of research funding

It seems that in Cyprus there is no official coordinating body for drug-related research that is responsible for allocating funding or co-ordinating drug-related research. Nonetheless, the Cypriot FP constitutes a main actor in monitoring the national situation and in this sense is active in promoting and stimulating further research in the drugs field.

Priorities

Since there is no specific coordination or funding mechanism for drug related research, research topics considered as priority are related with the implementation and monitoring of the EMCDDA's five key epidemiological indicators.

CZECH REPUBLIC

Summary

In the Czech Republic, the first strategy on illicit drugs was set up in 1993 and a more systematic approach of the issue started in 2002 when the NFP was set up. The currently most relevant research structure in the field (Centre for Addictology) was established in 2004 and it is assumed that it will take some more years before research on illicit drugs will be further elaborated also beyond these structures. The support of research in the field of drugs is mentioned explicitly as one of the tasks of the 2007–2009 Action Plan. As for the key research areas, it seems that between 2001-2006 research on national level was mainly driven by epidemiological research and evaluation of the impact of drug policy. The most significant source of research funding in the drugs field is the Internal Grant Agency of the Ministry of Health; as such, for the moment there is no need for an additional coordinative structure.

History of strategic development and vision behind the development of research capacity and funding structure

The first Czech-Slovak journal addressing alcohol related topics was already established during the 1960's. During that time, illicit drugs have not been addressed by research and only in the 1970's first outpatient treatment offers for addiction have been established. After 1898 and the splitting of the Czechoslovakia the aforementioned journal moved to the Slovak Republic. The first original Czech journal was established in 2000 (Adiktologie). The first strategy on illicit drugs was set up in 1993 and a more systematic approach started in 2002 when the NFP was set up. The (today) most relevant research structure in the field (Centre for Addictology)¹ was established in 2004 and it will take some more years before research on illicit drugs will be more elaborated also outside these structures.

The only mentionable funding infrastructures for research in the field of illicit drugs are the funding for the NFP (a regular budget line exists since 2002) and the above mentioned Centre of Addictology which mainly relies on research grants and still is a relatively small structure.

Future strategic approaches aimed at building research capacity and funding infrastructure

The support of research in the field of drugs is mentioned explicitly as one of the tasks of the 2007–2009 Action Plan, which also contains several specific research topics: intervention, in particular primary prevention, epidemiology, drug supply and drug policy.

¹ <http://www.addictology.org>

Appendix 3.1**Country Report: Czech Republic**

Concerning funding it is assumed that no additional funding for drug related research will be available in the future as general research priorities in the Czech Republic do not focus on illicit drugs. Presumably the overall budget available for research in the field of illicit drugs will rather decrease than increase.

RESEARCH TOPICS AND INFRASTRUCTURE**Key research structures involved at country level**

Most drug-related research in the Czech Republic is done by universities and national institutions that are attached to different Ministries. The major research institutions at universities are for instance: the Prague Psychiatric Centre of the 3rd Faculty of Medicine, the Laboratory of Social Psychiatry, the Centre for Addictology, Psychiatric Clinic of the 1st Faculty of Medicine and General Teaching Hospital, and the Institute of Forensic Medicine and Toxicology, of the 1st Faculty of Medicine and General Teaching Hospital at the Charles University in Prague, the Institute of Pharmacology of the Medical Faculty at the Masaryk University in Brno and the Department of Psychology at the Palacky University in Olomouc.

As for the institutes established by Ministries, the most important players are the Institute of Criminology and Social Prevention (Ministry of Justice) and the Institute of Health Information and Statistics of the Czech Republic (Ministry of Health).

The Public Opinion Poll Centre, Institute of Sociology, and the Institute of Psychology both at the Academy of Science of the Czech Republic are occasionally carrying out research projects in the drug field.

Based on the present study's desk work, the majority of drug related research project in the Czech Republic is carried out at universities and public/governmental organisations. These are for example the Prague Psychiatric Centre at Charles University, the Psychiatrické centrum Praha 8 in Bohnice or the Czech National Monitoring Centre for Drugs and Drug Addiction. These institutes are mainly concerned with epidemiological and intervention research. In addition, drug related projects are realised at private organisations and NGOs, for example NTI Consulting s.r.o., ResAD s.r.o. or Sdruzeni SCAN.

Coordination of research activities addressing illicit drugs on national level is done by the Secretariat of the Government Council for Drug Policy Coordination (GCDPC) which also hosts the NFP. It is the relevant administrative structure between the level of political decision making and the relevant institutions in charge of drug research. As the NFP already fulfils a lot of monitoring and reporting tasks by its nature, this additional (coordinative) responsibility is a natural expansion of its responsibilities.

Appendix 3.1**Country Report: Czech Republic****Key research areas**

A total of 10 research projects were identified that meet the inclusion criteria of the study. Among them the major research topic is “Epidemiology”. Other topics with one research project each are “Drug mechanisms, effects and methods of detection”, “Intervention”, “Policy” and “Legal frameworks”.

Research area	Sub-topic	Projects	Substances
1. Drug mechanisms, effects and methods of detection	1.1 Mechanisms of action	1	Other stimulants including caffeine (1)
3. Epidemiology	3.1 Population based	4	Multiple illegal substances (1), Combined legal and illegal substances (3)
	3.2 Clinical target groups	2	Opioids (1), Substance not specified (1)
4. Intervention	4.3 Treatment	1	Substance not specified (1)
5. Policy	5.1 Domestic Drug Policy	1	Substance not specified (1)
6. Legal frameworks	6.1 Illicit drug related law	1	Substance not specified (1)

According to the national key informants, research (on national level) between 2001 – 2006 was mainly driven by epidemiological research (ESPAD, HBSC, general population survey, prevalence estimates) and evaluation of the impact of drug policy. However, single projects also addressed e.g. short intervention studies among GPs or prevention activities. In the field of drug supply, a study to research the cannabis markets in CZ has been initiated (in 2007). Given the limited availability of funds on national level there was a clear domination of epidemiological and policy evaluation research. The Czech Academy of Science does not have a specific focus on drug research and does not play a noteworthy role in funding of respective research (see below).

Research publications/visibility

A total number of 13 scientific publications could be identified for the years 2001/2002 as well as 24 publications for the years 2005/2006. The more recent publications include a higher number of epidemiological papers as well as “Clinical and research assessments” mainly concerned with pharmacological aspects. Reviews on different drug related topics as well as basic brain science papers have also been published.

Appendix 3.1

Country Report: Czech Republic

Research area	Year of publication							
	2001		2002		2005		2006	
	P*	C**	P	C	P	C	P	C
A Basic Brain Science			2	30	3	18	1	3
B Epidemiology and surveys	2	4			6	14	2	5
C Clinical and research assessments	1	15	1	6	6	43	1	41
D Prevention								
E Demand and harm reduction					2	2		
F Criminological and drug supply								
G Policy and Legal frameworks								
H Reviews	4	10	3	11	2	2	1	2
Total	7	29	6	47	19	79	5	51

* No of publications

** No of citations

FUNDING STRUCTURE

Funding agencies and research budgets

The main sources of research funding in the field of drugs in the Czech Republic are the Internal Grant Agency of the Ministry of Health with a budget for drug-related research in 2007 of 530,300 € and GCDPC with a total budget for drug-related research in 2007 of 78,000 €. Further funding national research funding agencies with considerable budgets (but no specific for drug-related research) are the Czech Science Foundation, the Grant Agency of the Academy of Science of the Czech Republic, the Ministry of Education and the Ministry of the Interior.

Funding body	Explicit support for the field of drugs (2007)	Research support	Total budget for research in 2007 (€ thousand)	Budget for drug-related research in 2007 (€ thousand)*
Czech Science Foundation	No	Yes	53,598.3	
Grant Agency of the Academy of Science of the Czech Republic	No	Yes	43,849.6	
Internal Grant Agency of the Ministry of Health	Yes	Yes	28,562.6	530.3**
Ministry of Education	No	Yes	19,070.1	
CGDPC	Yes	Yes	78.0	78.0***
Ministry of the Interior	No	Yes****	172.1	

* Source: Research and Development Information System (<http://aplikace.isvav.cvut.cz/>)

** The total budget of the projects; the amount provided by the Ministry of Health is 485.1 thousand €.

*** Including the ESPAD survey in 2007 and other expenditures from monitoring and research carried out by the National Monitoring Centre for Drugs and Drug Addiction.

**** Ministry of the Interior– labelled funding via public contracts for research and development on exactly defined topics.

Appendix 3.1**Country Report: Czech Republic**

The total public expenditures (incl. regional budgets) for illicit drugs in 2007 are app. 16,788,000 CZK (~680,000 €). Out of this amount, an estimated maximum of 3,500,000 CZK (~140,000 €) is dedicated to research issues. According to the interview partner, this ratio (and overall amounts) didn't change considerably during the last years.

Five out of the ten research projects identified by our desk work were funded by national public (and in one case private) agencies. The specific research budgets are available for four research projects and vary between 43,000 and 85,000 €.

Coordination of research funding

Due to the small size of the country, almost all relevant scientists know each other and are involved in discussions to identify needs and research gaps. The NFP plays an important role in linking the national strategy on drugs (which also contains research issues) with questions arising from the scientific field. There are no systematic strategic initiatives like e.g. a dedicated national research focus for a certain period of time. As the Internal Grant Agency of the Ministry of Health almost exclusively funds drug related research, there is no need for an additional coordinative infrastructure. The NFP is in a position of having quite a good overview on ongoing research in Czech Republic, however, the NFP does not have a coordinative role with regard to funding.

The resources from the public budget for the implementation of research activity are distributed via the Central Grant Agency of the Czech Science Foundation, individual ministries, and public administration bodies.

Priorities

In the 2004–2008 National Policy for Research and Development in the Czech Republic a medium-term vision for the support and development of research was proposed and the total amount of expenditure for research and development in the Czech Republic. Neither the field of health nor the social field belongs to the basic long-term directions of research. The aim of the Action Plan of the 2nd National Research Programme is to implement the priorities of the national policy for research and development in 2006–2011 via a set of four thematic programmes and three cross-sectional programmes; none of the programmes contain any drug-related topics. In three priorities of the 2007–2009 Ministerial Programme for Research and Development of the Ministry of Health drug issues can be found.

The Centre for Addictology defines also priorities for action. By way of illustration the main priorities for 2006 and 2007 were related to the study programme they offer in Addictology, to the stabilisation and development of scientific and research activity and to the cultivation and development of collaboration

Appendix 3.1

Country Report: Czech Republic

with foreign countries. There is also an interest in the development of programmes in the field of lifelong learning, as well as in preparing a clinical base at the centre.²

² Centre for Addictology, 2006 Report on Activities.

DENMARK

Summary

Overall activity is modest with a primary focus on monitoring and treatment evaluation and epidemiology. There is no basic science activity in the field and no current plans to move in that direction. There is also no apparent use of Framework Programme Funding.

History of strategic development and vision behind the development of research capacity and funding structure in the field of (drug) addiction

Public health research funding and development in Denmark is overseen by the Ministry of Science, Technology and Innovation and the Ministry of the Interior and Health. These Ministries work through a number of dedicated councils and committees. The Research Coordination Committee co-ordinates government funded health research while the Council for Strategic Research Council supports research in politically prioritised research areas and contributes to promoting ties between public and private agencies in new research areas and innovations. The agency for Science, Technology and Innovation (DASTI) funds health related research and supports the work of a range independent research councils and agencies including the Research Policy Council which advises on health research policy frameworks and national research strategies. Alcohol and drug research activity is relatively modest and is mainly funded through the government departments and the National Board of Health has a priority around aspects of treatment and prevention. There is no overall cross disciplinary coordination with reference to drug dependence problems.

Future strategic approaches aimed at building research capacity and funding infrastructure

Denmark has a relatively good record of research and innovation and there is a dedicated Committee overseeing research training and development. However, in 2006 a number of problems were been identified within the research field in Denmark including low priority of funding for laboratories and associated equipment and a lack of competition for research funding. Also, Denmark's participation in EU research programmes is declining. A range of policy and funding strategies are being promoted to correct these situations including:

- A total of at least 3% of gross domestic product (GDP) spent on research and development by 2010;
- Least 50% of the research funds should be subject to open competition;

Appendix 3.1**Country Report: Denmark**

- The rules for research grants allocated on a competitive basis be revised, so that the grants cover the full costs of the institutions;
- The rules should be amended so the research councils can allocate funding support towards international research cooperation.

The focus of drugs research has been around the evaluation of interventions and development of sound evidence based policies. There is no overall future strategic plan and no obvious links to broader European research consortiums.

RESEARCH TOPICS AND INFRASTRUCTURE**Key research structures involved at national level**

The National Institute of Public Health is the main research institution tasked to conduct research into health and morbidity in Denmark. Further the Councils for Independent Research support to research with funding allocated through research networks, international collaborative programmes, and researcher training programmes. The National Board of Health is the institution developing practical and applied projects with service relevance. A recent large scale project on the evaluation of heroin treatment for opioid dependence has commenced. The main centre for alcohol and drug research has a primary focus on social issues and has little links with other scientific aspects of drugs research.

Key research areas

A total of 14 research projects were identified that meet the inclusion criteria of our study.

Research area	Sub-topic	Projects	Substances
3. Epidemiology	3.1 Population based	4	Combined legal and illegal substances (3), Multiple illegal substances (1)
4. Intervention	4.2 Person-oriented prevention	2	Combined legal and illegal substances (1), Substance not specified (1)
	4.3 Treatment	8	Substance not specified (5), Opioids (2), Combined legal and illegal substances (1)

Research publications/visibility

A total of 33 publications were identified as meeting the inclusion criteria in all four years. In addition to review publications research reports were identified in the areas of “epidemiology or survey research” “clinical and research assessments”, “criminological and drug supply”, and one report was found on a “policy and legal frameworks” issue.

Appendix 3.1**Country Report: Denmark**

Research area	Year of publication							
	2001		2002		2005		2006	
	P*	C**	P	C	P	C	P	C
A Basic Brain Science								
B Epidemiology and surveys	2	26	2	19	3	15	3	11
C Clinical and research assessments			2	7	3	8	2	7
D Prevention								
E Demand and harm reduction							3	10
F Criminological and drug supply			1	4	1	5		
G Policy and Legal frameworks			1	2				
H Reviews			2	2	4	9	4	35
Total	2	26	8	34	11	37	12	63

* No of publications

** No of citations

FUNDING STRUCTURE**Funding agencies and research budgets**

The key funding agencies are the National Board of Health and Ministry of Social Welfare which provide core funding the Danish Centre for Alcohol and Drug Research, which was based in Aarhus but has recently relocated to Copenhagen. This centre has a primary focus on social and humanistic aspects of drug problems and does not explore any more basic science or biological aspects of drug problems.

Coordination of research funding

Any coordination comes through the fact that most of the funding comes either through the Ministry of Health or Ministry of Social Welfare and other activities through the National Board of Health. The scale of activity is modest, the population size small and commentators are happy with the current range of activities.

Priorities

The priorities are around establishing Evidence Based Guidelines, developing the New Heroin Treatment Trial and continuing with a focus on intervention, evaluation and other socially relevant research.

ESTONIA

Summary

In Estonia foreign funds have played an important role in the development of drug-related research. At national level research is organised and funded through two national public health strategies. It has been reported that still state research funds for addiction research are limited and consequently most researchers interested in conducting drug related research projects apply for foreign funds. Currently, most drug research is conducted among IDUs.

History of strategic development and vision behind the development of research capacity and funding structure in the field of (drug) addiction

Estonia has a short history in the field of drug-related research. In the past, foreign actors (such as the Global Fund to fight AIDS, Tuberculosis and Malaria) have played an important role in supporting research in the field. As such, the research projects mainly carried out are in the areas of infectious diseases and injecting drug use. Currently, research in the field of addiction is organised through the National Strategy of the Prevention on Drug Dependency 2004-2012 (NSPDD) – which followed the former “Alcohol and drug abuse strategy” of 1997 – and the National Strategy for HIV/AIDS Prevention 2006-2015. Nonetheless, still national funds for addiction research are quite limited and most researchers interested in conducting drug related research projects apply for foreign funds. Data protection issues have been also a significant restraint on the development of research; especially in the areas the national researchers have been most active.

Future strategic approaches aimed at building research capacity and funding infrastructure

The NSPDD 2004-2012, which came into force in 2005, includes a separate chapter on monitoring and evaluation. Moreover, the respective Action Plan for the years 2007-2009 defines detailed activities and funding of drug monitoring and evaluation for three years. It seems though that state funds for addiction research are still quite limited.

RESEARCH TOPICS AND INFRASTRUCTURE

Key research structures involved at country level

The main research institutions in the field of drugs in Estonia are university departments, namely the University of Tartu and the Tallinn University, as well as a national development and research institute, namely the National Institute for Health Development (NIHD). Moreover, the Estonian Drug Monitoring Centre (EDMC) – a separate centre within the structure of the NIHD – functioning also as a REITOX National Focal Point of the EMCDDA is the national information centre responsible for the collection and analysis of data on illicit drugs in Estonia, the dissemination of information and the co-operation with the EU and non-EU National Focal Points, as well as other international bodies, universities, research institutes and organisations. The FP also carries out drug-related/HIV/AIDS research and communicates the knowledge and experience of its experts to local organisations.

Key research areas

Based on the study's inclusion criteria, three research projects could be identified for Estonia; all in the field of epidemiology.

Research area	Sub-topic	Projects	Substances
3. Epidemiology	3.1 Population based	3	Combined legal and illegal substances (3)

Research publications/visibility

Three scientific papers could be identified for the years 2001/2002 as well as six papers for the years 2005/2006 for Estonia meeting the study's criteria. Four out of these publications are reviews on drug-related topics. Moreover, articles concerning basic brain science, epidemiology and clinical/research assessments have been published.

Appendix 3.1

Country Report: Estonia

Research area	Year of publication							
	2001		2002		2005		2006	
	P*	C**	P	C	P	C	P	C
A Basic Brain Science					1	11	1	7
B Epidemiology and surveys							1	1
C Clinical and research assessments	1	12			1	6		
D Prevention								
E Demand and harm reduction								
F Criminological and drug supply								
G Policy and Legal frameworks								
H Reviews			2	20			2	4
Total	1	12	2	20	2	17	4	12

* No of publications

** No of citations

FUNDING STRUCTURE

Funding agencies and research budgets

The Estonian Ministry of Education and Research is responsible for the national funding of research. In addition, the Estonian Science Foundation provides grants for studies; nonetheless, it is considered a less significant source as far as funding of the HIV/AIDS research is concerned. The Global Fund Programme in Estonia implemented by the NIHD has been allocating funds for different drug-related studies from 2003 to 2007. In addition, EU research funds have contributed to the provision of funds for relevant studies and research. It seems that most research has been funded from foreign funds (e.g. Global Fund to Fight AIDS, Tuberculosis and Malaria, U.S. Civilian Research & Development Foundation etc). Data on the amount of funds allocated for drug-related research are not available.

Coordination of research funding

At national level, the main bodies coordinating drug-related research projects are specific ministries, such as the Ministry of Social Affairs, the Ministry of Justice and the Ministry of Internal Affairs. These are funded through two national public health strategies, as already mentioned in the section "History of strategic development and vision behind the development of research capacity and funding structure in the field of (drug) addiction". Most research projects within this framework have been conducted by NIHD and the Public Health Department of the University of Tartu.

Priorities

Currently most drug-related research refers to intravenous drug use. For the next years epidemiological studies (e.g. population survey, ESPAD) as well studies on special population groups (e.g. among night-club visitors, prisoners, students in schools for special needs) have been planned. Studies are also foreseen regarding the drug treatment data, the death causes and the HIV/AIDS prevention (EMCDDA Estonian National Report, 2007).

FINLAND

Summary

In Finland research on illicit drugs was an evolution of the already developed research interest on alcohol related issues. The first Finnish Drug Strategy was adopted in 1997; in parallel a research unit on illegal drugs was established at the public institute STAKES and state funding was foreseen for substance use and addiction projects. In recent years an increase on research capacities has been observed mainly due to the new Academy of Finland Research Programme on Substance Use and Addiction for 2007-2010. Most research relating to monitoring the national drug situation is conducted at three different institutes that all fall under the auspices of national ministries. Funding for most drug-related research in Finland falls within the framework of the state budget. Other sources of funding are the Academy of Finland and the Finnish Foundation for Alcohol Studies. The continuation of long-term follow-up research on the drug situation and the availability of up-to-date information on the drug situation to drug policy makers are among the action points of the Government Resolution on Cooperation regarding national drug policy 2008–2011. A significant role in the promotion and coordination of joint Nordic research projects on alcohol and drug topics plays the Nordic Centre for Alcohol and Drug Research (NAD) which is located in Finland and operates under the auspices of the Nordic Council of Ministers.

History of strategic development and vision behind the development of research capacity and funding structure

In Finland the first drug wave was in the late 60s and early 1970s, the second wave in the late 1990s. The dissertation of Pekka Hakkarainen in the 1980s, funded by the Finnish Foundation for Alcohol Studies, may be considered as a kind of start of research on illegal drugs in Finland. In 1997 the Finnish Drug Strategy was adopted. At that time a qualitative change with regard to drug research took place: (1) The drug research moved out of the alcohol field: the STAKES (National Research and Development Centre for Welfare and Health, established in 1995/96) added a research unit on illegal drugs. (2) The Academy of Finland Health Promotion Research Programme 2001 – 2004 was launched with a budget of 4.6 mill. € for grants. (3) The funding by the Academy of Finland changes from a more general health promotion programme to a specific substance use and addiction programme. In 2007 (until 2010) the Academy of Finland Research Programme on Substance Use and Addictions started with seven projects (two focussing on drugs) and a budget of over 5 mill. €

Future strategic approaches aimed at building research capacity and funding infrastructure

Research capacities have substantially increased due to the new Academy of Finland Research Programme on Substance Use and Addiction for 2007-2010. Based on a governmental decision the National Public Health Institute (NPHI) and the STAKES are being merged and the new institute – National Institute of Health and Welfare – will start operations on January 1, 2009. The merging of the two institutes can have some synergy benefits which may affect positively research capacities in the long run.

RESEARCH TOPICS AND INFRASTRUCTURE

Key research structures involved at country level

Most research relating to monitoring the drug situation in Finland is conducted at three different institutes that all fall under the auspices of national ministries (Welfare and Health or Justice): the STAKES, the NPHI, and the National Research Institute on Legal Policy. Moreover, the Finnish Foundation for Alcohol Studies, A-Clinic Foundation, Helsinki Deaconess Institute, drug-related organisations and Social and Welfare Centres of Expertise also carry out drug-related research.

The Nordic Centre for Alcohol and Drug Research (NAD) based in Finland operates under the auspices of the Nordic Council of Ministers. It launches and coordinates joint Nordic research projects on alcohol and drug topics¹.

Key research areas

The research topics in the period 2001-2006 were mainly epidemiology, as well as research on intervention. Seven major research projects in the field of illicit drugs were identified that were conducted within the timeframe of interest (2001 to 2006) and fulfilling the inclusion criteria of the study. Five projects can be subsumed under the broad research area “epidemiology” and aimed at assessing and problem drug use prevalence among general population. Out of them, one project was concerned with different illegal substances; and four projects covered both licit and illicit substances. The other research projects fall under the areas “intervention” and “interdiction”.

¹ <http://www.nad.fi/index.php?lang=en&id=whatis>

Appendix 3.1**Country Report: Finland**

Research area	Sub-topic	Projects	Substances
3. Epidemiology	3.1 Population based	5	Combined legal and illegal substances (4) Multiple illegal substances (1)
4. Intervention	4.3 Treatment	1	Other stimulants including caffeine (1)
8. Interdiction	8.5 Drug supply related forensics	1	Other stimulants including caffeine (1)

Research publications/visibility

A total of 16 publications for the years 2001/2002 and 32 publications for the years 2005/2006 were identified for Finland. These papers mostly concern clinical and research assessments. Several publication are reviews, whereas there is also a number of papers addressing epidemiological as well as demand and harm reduction issues.

Research area	Year of publication							
	2001		2002		2005		2006	
	P*	C**	P	C	P	C	P	C
A Basic Brain Science							4	35
B Epidemiology and surveys	3	62	2	11	2	4	5	21
C Clinical and research assessments	4	53			6	103	8	63
D Prevention								
E Demand and harm reduction			3	17	1	26	1	2
F Criminological and drug supply								
G Policy and Legal frameworks								
H Reviews	2	17	2	13	1	4	4	9
Total	9	132	7	41	10	137	22	130

* No of publications

** No of citations

FUNDING STRUCTURE**Funding agencies and research budgets**

Funding for most drug-related research in Finland falls within the framework of the state budget as part of the total funding for each research institute. Main funding institutions are the National Research and Development Centre for Welfare and Health, the STAKES and the NPHI, both of which fall under the auspices of the Ministry of Social Affairs and Health with a total annual budget of 2,2 mill. €, of which

Appendix 3.1**Country Report: Finland**

about 30% is for illegal drugs research. Moreover, it is possible to apply to the ministries for separate research funding, such as to the Ministry of Social Affairs and Health for a grant to promote health or to the Ministry of Justice for research and development funding (TUKE). In addition the Academy of Finland is financing drug-related research to the sum of 5.5 mill. € through its Substance Use and Addictions programme for the years 2007–2010. This research programme was developed with the input from researchers in a bottom-up approach. The Finnish Foundation for Alcohol Studies also grants money for drug-related research. In addition, it is possible to apply for drug-related research funding from the many foundations that are involved in financing research.

Coordination of research funding

In 1999, the government set up the National Drug Policy Coordination Group, which is composed of representatives from all involved Ministries and is reappointed every four years. This group has the task of coordinating national drug policy and intensifying collaboration between authorities in their effort to implement and monitor the Government Resolution on Cooperation regarding national drug policy 2008–11. One of the Resolution action points out that long-term follow-up research on the drug situation will be continued and the availability of up-to-date information on the drug situation to those responsible for drug policy will be ensured. In addition to the coordination group, the Advisory Committee on Intoxicant and Temperance Affairs acts as an advisory board and discussion forum on alcohol and drug issues. This Advisory Board consists of politicians and members of NGOs.

Priorities

In the national drug policy research constitutes a key position and the topics mentioned range from drug use, harm resulting from drug use and service provision, to policy evaluation and measures. In this vein, the latest drug policy action programme for 2004-2007 stipulates the following: “Research knowledge and expertise on drug-related matters are indispensable in order to effectively plan, evaluate, develop and implement the Finnish drug policy” (EMCDDA Finnish National Report on Drugs, 2007).

FRANCE

Summary

The Interministerial Mission for the Fight against Drugs and Drug Addiction - MILDT acts as the central coordinative centre for drug issues from a political perspective and has gained a stronger role in further development of drug-related research in France since 1995. Its main role is to facilitate policy development and evaluation rather than research and the country has therefore a strong tradition in policy evaluation in the drugs field. Some major and well established players are responsible for structural funding of research in general and since 2005 also the National Agency for Research - ANR funds all kinds of scientific projects; no special focus is set on research on illicit drugs. It seems that drugs as such are not a topic of high relevance among the scientific community research; illicit drug-related research is only utilised as an appropriate model to research broader topics in most of research disciplines. The vast majority of research budget goes to universities. The main obstacle reported to systematically improve the situation of drug-related research is seen as the number of institutions and actors involved, which is also related to the fact that there is no central agency coordinating national research on illicit drugs.

History of strategic development and vision behind the development of research capacity and funding structure

The National Institute for Health and Research in Medicine - INSERM (Institut national de la santé et de la recherche médicale) and the National centre for Scientific Research - CNRS (Centre National de la Recherche Scientifique) are the traditional and most powerful institutions among those in charge of research funding in France. Huge shares of research capacities located within universities and other public institutions rely on structural funding (mainly through salary payment of researchers located in jointed/affiliated research units within Universities) of these two institutions which have several subdivisions and/or thematic institutes which again serve as funding sources for several institutions. For the funding of research programs/projects responsible are the National Agency for Research - ANR (Agence Nationale de la Recherche) and other administrations, Ministry's departments, agencies, or institutions (like for instance the Groupement d'Intérêt Scientifique), which launch call for tenders on a regular basis. Before the establishment of the Interministerial Mission for the Fight against Drugs and Drug Addiction - MILDT, no institution existed which explicitly and in a coordinated fashion supported drug-related research in France. However, the main role of the MILDT is not to facilitate research but policy development and evaluation. Consequently, France has a strong tradition in policy evaluation in the drugs field. Generally spoken, like in most of the European countries, research on alcohol and psychiatric disorders was the starting point for drug-related research in France in the past. Since the spreading of the HIV-epidemic, drug-related research became more important and grew considerably.

Future strategic approaches aimed at building research capacity and funding infrastructure

Future development of research capacity

It is anticipated, that in the future the ANR will have a more powerful position with regard to research coordination and funding and even funding will assumingly be much more centralised. The MILDT as the central coordinative body which bridges the gap between policy and activities taken to implement and evaluate this policy, does not and will even not in the future play an important role for researchers as its budget is rather limited and does not support larger-scale projects. However, all projects funded by the MILDT have a clear relationship to drugs which is definitely not the case for more scientifically oriented institutions like the (new and expanding) ANR. The main obstacle to systematically improve the situation of drug-related research in France is due to the number of institutions and actors involved. There is no central institution or organisation that is able to identify and link all drug-related research in France. All existing institutions cover only certain areas which are mainly defined by the task and scope of the respective umbrella institution (like e.g. policy evaluation in case of the MILDT).

Funding development of funding infrastructure

With regard to the identification of research topics, the MILDT already has an important role (and will also have in the future) in translating research needs (in the drugs field) from policy needs. However, the overall situation with regard to funding will assumingly not change completely and budget for drug-related research will not rise in the future.

RESEARCH TOPICS AND INFRASTRUCTURE

Key research structures involved at country level

Major research institutes

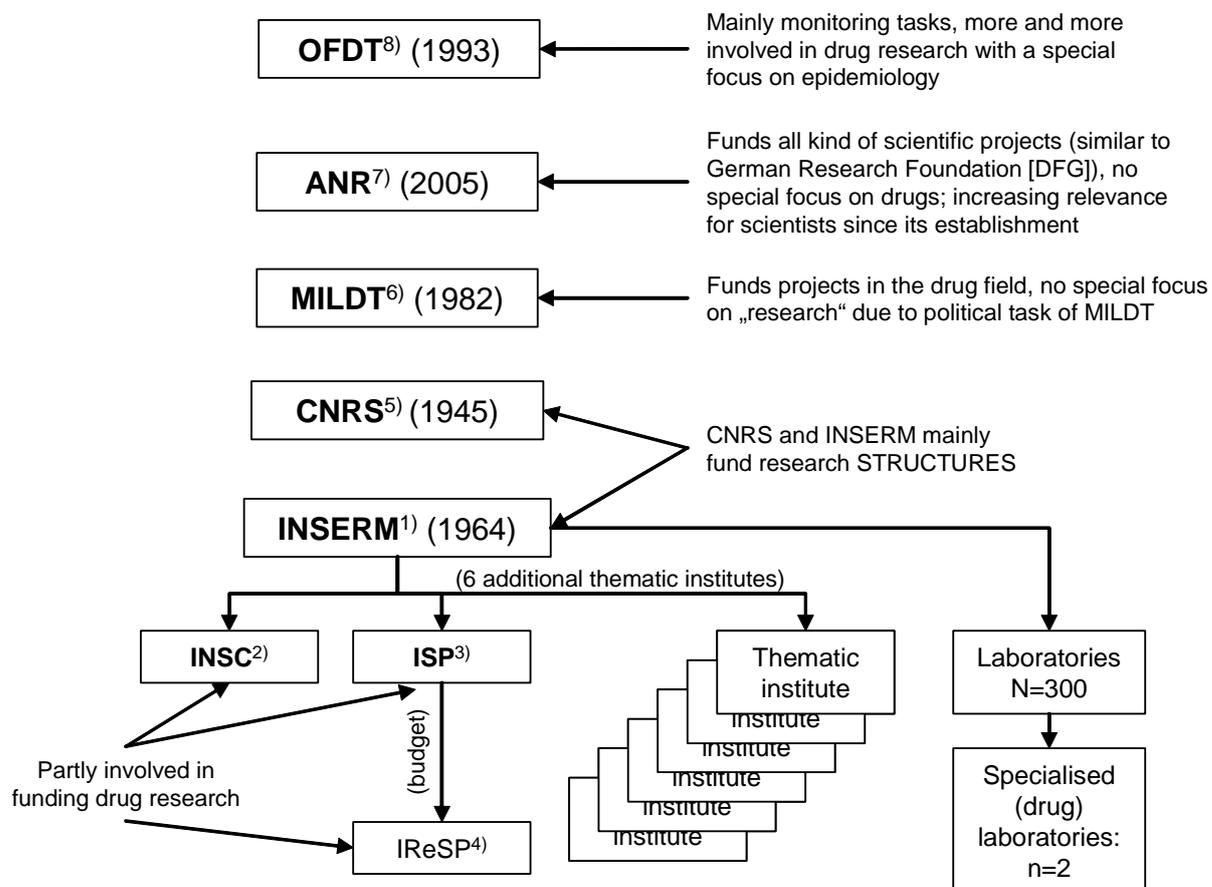
Different structures are involved in drug-related research in France. The major research institutes are presented in figure 1. In the field of the neurosciences, the research potential is divided among the laboratories of two public research bodies, INSERM and CNRS, to which should be added several university laboratories or those linked to the Grandes Ecoles¹.

¹ A particular kind of French university.

Appendix 3.1

Country Report: France

Figure 1. Main institutions involved in drug research in France



INSERM: National institute for health and research in medicine (Institut national de la santé et de la recherche médicale)

INSC: INSERM Thematic Institute for Neuroscience, neurology, psychiatry

ISP: INSERM Thematic institute for Public Health

IReSP: Public Health research institute

CNRS: National centre for scientific research (Centre national de la recherche scientifique)

MILDT: Interministerial mission for the fight against drugs and drug addiction (Mission interministerielle de lutte contre la drogue et al toxicomanie)

ANR: National Agency for Research (Agence National Recherche)

OFTD French Monitoring Centre for Drugs and Drug Addiction (French Focal Point of the EMCDDA, Observatoire français des drogues et des toxicomanies)

Clinical research on the treatment of addiction is settled in psychiatric departments of the university hospitals, pharmacology departments, centres specializing in the treatment of addicts, which (in France) are often based outside the hospitals, as well as in preclinical and clinical research teams working for medicine manufacturers (in particular concerning nicotine or opioid substitutes).

Other players in research are the Institute of Research for Development (Institut de Recherche sur le Développement - the geography, economics and sociology of development), the School for Advanced Studies in the Social Sciences (Ecole des Hautes Etudes en Sciences Sociales), the Regional Health Observatories (Observatoires Régionaux de la Santé or "ORS"), the health agencies (including the Health Monitoring Institute / Institut de Veille Sanitaire and the National Institute for Prevention and Health Education / Institut National de Prévention et d'Education à la Santé), the Institute of Research in Public Health (Institut de Recherche en Santé Publique, located within the INSERM), the School for

Appendix 3.1**Country Report: France**

Advanced Studies in the Public Health (Ecole des Hautes Etudes en santé Publique) and various associations.

In addition the French Monitoring Centre for Drugs and Drug addiction - OFDT (Observatoire français des drogues et des toxicomanies) which performs, among others, the role of EMCDDA's French Focal Point conducts and commissions research projects (mainly addressing epidemiological aspects). The OFDT also serves as the institution which is the technical operator for the evaluation of the (national) drug action plan and selects institutions providing additional input for the evaluation of the national drug action plan on a scientific basis (commission of Research Units in the context of call for tenders).

Coordination of research

Established in 1982, MILDT acts as the central coordinative centre for drug issues from a political perspective and has gained a stronger role in further development of drug-related research since 1995 (it did not have a coordinative role before this year). However, there is no central agency coordinating national research on illicit drugs. Some major and well established players (CNRS, INSERM – see figure 1) are responsible for structural funding (according to the precisions laid out earlier) of research in general and since 2005 also the ANR funds all kinds of scientific projects – however, no special focus is set on research on illicit drugs. Generally spoken, research in France is mainly structured along the major scientific disciplines leading to the situation, that illicit drugs are only addressed if the topic serves as a feasible model to research certain aspects under a (e.g.) sociological or psychiatric perspective. The vast majority of CNRS, ANR and INSERM budget goes to universities (~80%). Unfortunately, most of the French universities do not have a clear priority in teaching and educating students rather than in conducting research.

Major Meetings

No specific interdisciplinary major meetings beside usual political, administrative and scientific meetings (which do not have a leading character or a special focus on drugs). The basic policy of scientific research is still to remain and publish within your own research discipline because that's the only possibility of being promoted in scientific careers. Some scientific meetings are organised from time to time.

Research societies

The "Society of Addictology" and other medical societies do not play a key role in drug related research. Based on the present study's desk work, most drug related research in France is conducted at public/governmental organisations. These are mainly CNRS and INSERM carrying out research on drug mechanisms, effects and methods of detection.

Appendix 3.1

Country Report: France

Key research areas

MILDT launches a call for tender (referring to drug issues) on an annual basis and scientific institutions are free to apply for respective funding for circumscribed projects. However, as the overall annual budget for these projects is rather small (~1,200,000 €), the total amount funded for an individual project is also rather limited (only ~55,000 €, it could be more for neurobiological and clinical research and quite less for social sciences projects). The annual call for tender is embedded into the framework of MILDT's workplan which – in principle – covers all drug-related topics. Due to this broad scope, research topics do not vary very much from year to year, however, there might be a special focus put on topics which are of specific relevance in a given year (e.g. young cannabis users or natural recovery/maturing out processes). For institutions interested in the drugs field, this funding is an important source. MILDT provides a framework for drug-related research since 1999 and one of the recent key priorities was to improve services for cannabis users in France (also supported by the Ministry of Health). During the last years, special emphasis has been put on the improvement of services for cannabis users which was supported by the Ministry of Health and MILDT. Also maturing out of drug use became a topic. Establishment and further development of cannabis consultation has also been funded by social security funds.

Taken into account the limitations of the study, a total of 10 research projects were identified that meet the inclusion criteria. The major research topics are "Drug mechanisms, effects and methods of detection" and "Epidemiology".

Research area	Sub-topic	Projects	Substances
1. Drug mechanisms, effects and methods of detection	1.1 Mechanisms of action	4	Substance not specified (3), Multiple illegal substances (1)
3. Epidemiology	3.1 Population based	3	Combined legal and illegal substances (3)
4. Intervention	4.3 Treatment	1	Cannabinoids (1)
7. Drug supply	7.5 Diversion/Leakage	1	Multiple illegal substances (1)
8. Interdiction	8.3 Organised crime	1	Substance not specified (1)

It is clear that within the given time frame many more research projects were conducted in France, which however could not be included into the study because of the criterion related to the English abstract. An indication of the amount of the projects carried out in the drug field at national level could be given by the number of relevant research projects funded by MILDT between 2000 and 2007; 81 projects were reported, none of which met the study's inclusion criteria, since no English abstract was available.

Appendix 3.1

Country Report: France

Research publications/visibility

Based on the inclusion criteria of the current study, a total of 143 scientific publications could be identified for the years 2001/2002 as well as 135 publications for the years 2005/2006. A great number of papers is concerned with epidemiological topics. Moreover, basic brain science articles as well as clinical and research assessments addressing mainly pharmacological aspects are often published. Reviews on different drug themes also play an important role. The other categories do not yield much publications and citations, except for the section “Demand and harm reduction” which includes scientific papers on intervention studies.

Research area	Year of publication							
	2001		2002		2005		2006	
	P*	C**	P	C	P	C	P	C
A Basic Brain Science	11	341	14	565	21	284	14	160
B Epidemiology and surveys	26	985	19	364	19	237	9	45
C Clinical and research assessments	14	149	11	178	17	117	19	89
D Prevention								
E Demand and harm reduction	13	350	7	150	8	75	5	17
F Criminological and drug supply	1	9			1	8		
G Policy and Legal frameworks								
H Reviews	15	138	12	144	15	148	7	15
Total	80	1972	63	1401	81	869	54	326

* No of publications

** No of citations

FUNDING STRUCTURE**Funding agencies and research budgets**

The main funding agencies in terms of structural funding of scientific activities in France are INSERM (medical research) and CNRS (research in general) which both do not have a special focus on drug-related research but on funding traditional research disciplines (some exceptions do exist like e.g. 2 out of 300 laboratories of INSERM which are specialised in drugs, see figure 1). Other funding institutions are ANR, but with not substantial funding for drug-related research and – with a special focus on drugs – MILDT and OFDT (see figure 1 for further details).

Since 1999, MILDT launches each year a multi-themed tender (in the biomedical, public health, human/social and political science fields) in order to encourage work on addictions of all kinds. As part of this scheme, MILDT works with two other partners: INSERM and the National Cancer Institute. In total, over the 1999-2006 period the financial support by MILDT represents an overall financial package of 6.3 mill. € for the whole period, equal to roughly 800,000 to 1.2 mill. € per year. Approximately 20% of the supported research concerns projects in the field of neuroscience, a further 20% concerns clinical projects and the remaining 60% concerns projects in the areas of human and social sciences and/or public health.

Appendix 3.1**Country Report: France**

In addition to MILDT, a number of other French public or private institutions are involved in financing drug-related research (Ministry for Health, Agence Nationale de Recherche sur le Sida (National Agency for AIDS Research), Institut de Veille Sanitaire (National Institute for Public Health Surveillance) and many other agencies like INCA (Institut National du Cancer).

Finally, numerous associations and private foundations representing either the professionals concerned, or the users, or the companies related to this area in various ways (distributors of alcoholic drinks, tobacco manufacturers or pharmaceutical firms) finance surveys and research work with varying degrees of regularity.

Five projects identified by the study's desk work are funded by the European Commission, one by a grant from DG SANCO and four by a grant from DG RTD. Single research budgets vary between less than 100,000 € and a maximum of 2,800,000 € for a neuropsychological study on specific drug mechanisms.

Coordination of research funding

Drugs are not (and will even not be in the future) a topic of high relevance among the scientific community as drug-related research is only utilised as an appropriate model to research broader topics in most of the research disciplines (neurobiological research possibly is the only exception where drug-related topics as such play a role). Consequently, prioritisation with regard to drug-related research does only take place in the framework of MILDT which is responsible to “translate” policy needs into research questions. However, as MILDT is primarily dealing with drug policy, also research funded by MILDT does mainly cover this area and the limited overall budget available via the MILDT does make this even less important for the broad research community. Possibly the link between MILDT and other institutions like e.g. ANR will improve in the future. Priorities of drug-related research as such are mainly influenced and defined by MILDT (interpreting policy needs). However, the overall impact on scientific research is very limited as there is no link between e.g. MILDT and medical or neurobiological research.

Broad lines of relevant research priorities are defined by international institutions like e.g. WHO and even individual researchers define priorities according to their individual scientific needs and possible integration into research taking place in their respective institutions. The theoretical background of the individual researcher and/or his institution still is the dominating factor to influence research interests. This is especially true e.g. for neurobiological research or drug-related research taking place in the framework of psychiatric research – which are not linked e.g. to the activities under supervision of MILDT.

Priorities

The research priorities are on drug crime, on the effectiveness of public policy and on law enforcement activities.

GERMANY

Summary

Drug related research in Germany has a long tradition of about 60 years, whereas a considerable advance has been noted in the 90s with the adoption of the National Anti-Drug Strategy Plan. Currently research projects are carried out at numerous sites of various types (universities, public agencies, private research institutes) and there is a well-established cooperation platform of four regional networks (German Addiction Research Network). As a result there is a major drug related research production in a wide range of areas, such as drug mechanisms, aetiology, interventions, pharmacotherapeutical studies and epidemiology. Since 1970, a considerable change in research priorities has been observed; for the future there is a growing interest on maintenance treatment, on pharmacological interventions and in general there is a focus on licit substances or addictive behaviours. State funding sources sponsor the majority of drug-related research; the European Commission constitutes also a significant funding source. Germany has an increased EU activity.

History of strategic development and vision behind the development of research capacity and funding structure

Development of research capacity

After World War II there were at first only a few research activities. Along with an increase of the drug problem since 1970, research capacity expanded considerably. Over many years research was very fragmented, there was very few cooperation and coordination.

The first research activities were preliminary funded by in-house budgets of the Max Planck Institute of Psychiatry. With the dramatic increase of the problem related to illicit drugs around 1970, the Ministry for Health funded continuously research projects and the evaluation of model projects to improve health care.

The National Anti-Drug Strategy Plan 1990 of the Federal Government has fostered a second considerable advance in drug-related research, because of strengthening their need. This strategy was the catalyst for the Ministry of Education and Research to convoke a scientific committee, whose proposals were – since 1991 - the basis of a systematic and comprehensive promotion of drug-related research. In this context, because of the funding of four research networks, research capacity was especially developed at universities in Freiburg, Essen, Münster, Lübeck, Greifswald, München, and Dresden, in addition to the capacity building at independent research institutes like the Zentralinstitut für Seelische Gesundheit in Mannheim, the Max Planck Institute of Psychiatry and the IFT Institut für Therapieforschung.

Appendix 3.1**Country Report: Germany**

Cooperation and joint presentation of research work was improved by the foundation of the German Society of Addiction Research and Addition Treatment in 1978. In addition to the journal „Suchtgefahren“, that already exists since more than 100 years (today SUCHT), further German language addiction journals emerged since about 2000, such as Suchtmedizin, Suchttherapie and the English language journal “European Addiction Research” as well as journals that are more oriented on practice. In addition, more research societies were founded, e.g. the German Society for Addiction Medicine and the German Society for Addiction Psychology.

Research priorities

Research priorities have considerably changed since 1970. Several trends can be found: 1) from more applied treatment research to basic research, e. g., on aetiological factors or on brain functioning, 2) from illicit drugs, especially opioids (heroin) in the beginning to other illicit drugs in the recent years like cannabis and designer drugs, to licit drugs like alcohol and tobacco. From intervention studies to the whole range of research fields, including epidemiology, course of substance use disorders and aetiology. There is still only few research on activities in supply and supply reduction of substance use.

Development of research funding infrastructure

Since 1970 along with the emerging drug problem in Germany the Federal Ministry of Health (BMG) has a budget for drug-related research. Funded were on the one hand the scientific evaluation of programmes to improve treatment supply and on the other hand research projects, e. g., on treatment of heroin and alcohol dependence. Altogether the topics of research are more practice oriented according to the responsibility of the Ministry of Health to understand the size and type of the drug problem including trends over time, to improve the care for subjects with substance use disorders and to improve the related health and social system. The funds of the Ministry of Health are explicitly dedicated to the area of substance-related disorders, but not to particular substances and especially not to the field of illicit drugs. During the last years there were almost no changes in the budget; in the following years neither drastic shortages nor rises are expected.

As a consequence of the National Anti-Drug Strategy, the Federal Ministry of Education and Research (BMBF) has provided additional research budgets for a specific time period. The aims of the ministry were explicitly to improve the research capacity in Germany, especially at the universities, including the funding of new chairs for addiction research in clinical psychology and medicine, the improvement of the German addiction research toward international levels of excellence and the application of new research knowledge to improve health and social care related to substance use disorders in Germany. The budget for projects from 1997 onwards and for a comprehensive research programme 2001-2008 (with four research networks) were not limited to specific substances or specific research fields. Project applications were investigator driven and had only followed the above mentioned general targets of the BMBF to improve the quantity and quality of research infrastructure in Germany. But, different to the BMG, the funded research projects were more in the area of basic research (aetiology, brain imaging, mechanisms of change in the course of substance use). The end of the BMBF funding

Appendix 3.1**Country Report: Germany**

of a broad range of research topics is seen as a major problem by most of German addiction researchers. Only parts of the research activities can be continued by the German Research Foundation (Deutsche Forschungsgemeinschaft) funding society in Germany, so that the research capacity which was developed in the last years at university and independent research institutes is at risk of losing its financial basis. The research budget of the Federal Ministry of Education and Research totalled between 2001 – 2008 to 24 mill. €. From 2009 no more substance related funds will be available from this ministry.

In addition to the two mentioned ministries there are other sources of research funding in Germany, especially from the Federal Länder, the Health and Pension Insurance Systems and some independent research funding organisations like the Volkswagen Foundation. But altogether they did not have a systematic funding concept nor an ongoing dedication to the improvement of research capacity.

Future strategic approaches aimed at building research capacity and funding infrastructure**Research topics**

Future research topics are related to maintenance treatment, in particular processes of course and drop out as well as psychotherapeutical interventions. Furthermore pharmacological interventions and concerning substances cannabis will be a topic of interest. In general, research interest will focus more on legal substances and non substance-related behavioural dependencies like pathological gambling or internet use.

Research capacity

Currently no research funding programmes are planned by the Ministry of Education and Research, which probably will lead to a considerable drop of drug-related research in Germany. No changes of the current funding budget and concept (more applied research to improve prevention and care of substance use disorders in Germany) are planned by the Ministry of Health.

RESEARCH TOPICS AND INFRASTRUCTURE**Key research structures involved at national level**

As already presented in “History of strategic development and vision behind the development of research capacity and funding structure”, Germany has a wide variety of research sites at the following places: a) universities, b) public (federal or state level) agencies and c) private (non profit) research institutes.

Appendix 3.1**Country Report: Germany**

The academic disciplines of (clinical) psychology and medicine (psychiatry) are mostly involved in drug-related research. In the area of trafficking and other areas of supply related research, the main faculty concerned is criminology.

Key research areas

The key research topics during the last years in Germany were drug mechanisms, aetiology in course (genetics, longitudinal studies and epidemiology), intervention (methadone maintenance, heroine prescription and additional psychotherapeutic and psychosocial measures), pharmacotherapeutical studies, epidemiology, etc. Recent developments have been in the field of pathological gambling and pathological forms of computer activities.

A total of 35 research projects were identified that meet the inclusion criteria of the present study. Among them the major research topic is "Intervention" followed by "Epidemiology" and "Drug mechanisms, effects and methods of detection".

Research area	Sub-topic	Projects	Substances
1. Drug mechanisms, effects and methods of detection	1.3 Drug effects on emotion, cognition and behaviour	1	Cannabinoids (1)
	1.4 Clinical Psychology	2	Combined legal and illegal substances (1), Multiple illegal substances
3. Epidemiology	3.1 Population based	8	Combined legal and illegal substances (7), Substance not specified (1)
	3.2 Clinical target group	1	Cannabinoids (1)
	3.3 Other specific target groups	1	Substance not specified (1)
4. Intervention	4.1 Environmental prevention	1	Opioids (1)
	4.2 Person-oriented prevention	4	Substance not specified (3), Combined legal and illegal substances (1)
	4.3 Treatment	15	Opioids (6), Substance not specified (5), Cannabinoids (2), Cocaine (1), Combined legal and illegal substances (1)
10. Others	10.1 Others	2	Cannabinoids (1), Substance not specified (1)

Research publications

A total of 172 publications for the years 2001/2002 and 212 publications for the years 2005/2006 could be identified. Most papers within the section "Basic Brain Science" are concerned with neurobiological or pharmacological topics.

Appendix 3.1**Country Report: Germany**

Research area	Year of publication							
	2001		2002		2005		2006	
	P*	C**	P	C	P	C	P	C
A Basic Brain Science	8	87	11	280	7	70	22	107
B Epidemiology and surveys	18	777	25	366	36	338	17	44
C Clinical and research assessments	21	281	31	389	31	319	27	189
D Prevention							1	3
E Demand and harm reduction	4	40	9	60	15	61	10	37
F Criminological and drug supply	4	17					2	4
G Policy and Legal frameworks								
H Reviews	12	209	29	229	27	254	17	10
Total	67	1411	105	1324	116	1042	96	394

* No of publications

** No of citations

It should be stated though that the actual national production with regard to drug research is much bigger, since a significant number of the scientific articles that were detected could not be included due to the language limitation. By way of illustration, from a complete list of drug-related publications compiled by the German Focal Point only for the years 2005-2006, a total of 41 papers could not be included in the study's analysis, mainly due to their lack of an English abstract.

FUNDING STRUCTURE

Funding agencies and research budgets

The biggest national institutions commissioning drug-related research projects are the Ministry of Education and Research, whose main focus is especially on research on use of drugs, the Ministry of Health (including the Federal Center for Health Education BZgA and the Robert Koch Institute) and the German Research Foundation (Deutsche Forschungsgemeinschaft), which concentrates on basic research. Not only the Robert Koch Institute or the Federal Centre for Health Education (BZgA) commission research projects – in some cases they perform such studies themselves. Moreover, there are numerous research projects which are supported by the German Länder or local governments or by non-governmental organisations and foundations.

The majority of drug-related research projects in Germany is funded by national public agencies (e.g. Ministry of Education and Research, German Research Foundation, Ministry of Health). Moreover, the European Commission plays an important role, including funds from DG SANCO, DG JLS and DG RTD.

Appendix 3.1**Country Report: Germany**

Total research budgets are available for 11 of the 38 identified projects. Single budgets vary from 33,000 € for a project on interdiction to a maximum of 23,812,601 € for one large epidemiological study funded by the European Commission.

Funding agency	Projects	Funding structure	Funding programme	Funding volume
5 DG SANCO	3	Single project (3)	Health research budget (3)	3,027,287 €
6 DG JLS	7	Single project (7)	Criminal justice research budget (7)	702,711 €
7 DG RTD	4	Single project (4)	Health research budget (3), n. a. (1)	20,639,625 €
Total				24,369,623 €

Coordination of research funding

There is no central coordinating institution for drug-related research in Germany. Depending on the content of studies, there are various ministries in charge, e.g. the Ministry of Health for the heroin trial, the Ministry of Education and research for studies by networks for research on addictions or the Ministry of Transport, Building and Urban Affairs for drug consumption and traffic. A key role in drug-related research is played by interdisciplinary addiction research networks, which received funding (20.4 mill. €) for 2001-2008 from the Ministry of Education and Research, within the framework of the national Health Research Programme. Four illicit drug-related projects were identified that were realised within these research networks. A certain amount of research coordination has taken place within these four network due to their cooperative structure.

In European framework programmes, German drug-related research programmes are usually funded under health or criminal justice labels (DG SANCO: Public Health Programme, Strand 3 “Promoting health and prevent disease through addressing health determinants across all policies and activities”; DG JLS: Programme for police and judicial co-operation in criminal matters AGIS; DG RTD: 5th Framework Programme, Subprogramme area “Public health and health services research”).

Priorities

Future research topics are substitution treatment and its psychosocial accompanying interventions. Besides pharmacological interventions the focus will be on cannabis as a single substance. There will be a shift of priorities towards legal substances and behavior-related addictions, such as pathological gambling.

GREECE

Summary

Drug-related research in Greece started in the early 80s with a focus on epidemiology. The importance and the value of developing research in this field are stipulated in the national policy documents on drugs. The coordinating body on drugs, OKANA, is one of the most active institutes in drug research; it carries out research projects and – together with the Ministries of Health and Education – it is also responsible for drug-related research. National as well as European funds have been financing the respective activities. There is no central coordination for drug-related research in the country, however there exist a General Secretariat of Research and Technology, which, among others, supports research activities and promotes international cooperation. The national Focal Point monitors the national situation; moreover, it publishes annually the Greek Bibliography on Drugs and runs two databases with information on Greek drug-related research.

History of strategic development and vision behind the development of research capacity and funding structure in the field of (drug) addiction

Research on drugs started in Greece in the early 80s, with the first nationwide epidemiological surveys on licit and illicit drug use in the general and the student population, conducted in 1984 by the Department of Psychiatry, University of Athens and funded by the European Union. These surveys formed the basis for subsequent nationwide survey circles conducted in 1993 (Department of Psychiatry), and in 1998, 2003, and 2007 (University Mental Health Research Institute [UMHRI]), funded by the Greek coordinating body on drugs - OKANA (Organisation Against Drugs).

These, along with other, smaller scale research projects, most of which are included in this report, were funded ad hoc by national or European funds, and were not the outcome of a pre-existing funding national planning or structure. The first Greek Action Plan on Drugs 2000-2004 as well as the subsequent Action Plans made references to the importance and the value of developing drug-related research in the country.

Future strategic approaches aimed at building research capacity and funding infrastructure

The National Action Plan on Drugs 2008-2012 and the National Action Plan on Alcohol 2008-2012 specify the priorities on research, quite similar for both Action Plans. The priorities are mentioned in following sections (“Funding Structure” and “Priorities”). Funding is foreseen by the national budget.

RESEARCH TOPICS AND INFRASTRUCTURE

Key research structures involved at country level

Most of the drug-related research in Greece has been conducted by research organisations, public institutions and university departments. Among the most active institutions is OKANA (the coordinating body on drugs), whose Research and Evaluation Department is involved in European and international research projects. The UMHRI is one of the main institutions which carries out nationwide population surveys on the general and the student population, the latter through its participation in the ESPAD and HBSC-WHO groups. Active in drug research is also the Therapy Centre for Dependent Individuals (KETHEA), one of the two major drug-free treatment organisations in the country. Public institutions such as the Ministry of Education and its Pedagogical Institute as well as the Ministry of Health are also responsible for supervising research on drugs. Various universities, such as the Universities of Athens (Department of Psychiatry), Thessaloniki and Ioannina, are also involved in drug research. In addition, the Greek National Focal Point of the EMCDDA plays a significant role in the monitoring of the national situation. The FP, apart from the collection of drug-related research projects, also gathers all drug-related scientific papers, published or delivered in conferences by Greek experts and publishes annually the Greek Bibliography on drugs. The information collected is accessible through two databases in the website.

Based on the desk work conducted for the present study, most drug-related research projects are carried out at universities, mainly the University Mental Health Research Institute. This is mostly true for nationwide epidemiological studies on drug use.

Key research areas

A total of six research projects were identified that meet the inclusion criteria of the study. Most projects are carried out within the area of "Epidemiology".

Research area	Sub-topic	Projects	Substances
3. Epidemiology	3.1 Population based	4	Combined legal and illegal substances (4)
10. Others	10.1 Others	2	Combined legal and illegal substances (1), Substance not specified (1)

Research publications/visibility

A total of 11 publications could be identified for the years 2001/2002 as well as 17 publications for the years 2005/2006 fulfilling the study's inclusion criteria. The major topic addressed in these publications is "Clinical and research assessments". Moreover, reviews on different drug-related aspects have been published.

Appendix 3.1**Country Report: Greece**

Research area	Year of publication							
	2001		2002		2005		2006	
	P*	C**	P	C	P	C	P	C
A Basic Brain Science	1	2						
B Epidemiology and surveys			1	10			4	15
C Clinical and research assessments	4	27	1	3	2	6	7	10
D Prevention								
E Demand and harm reduction								
F Criminological and drug supply								
G Policy and Legal frameworks								
H Reviews	3	8	1	3	2	2	2	8
Total	8	37	3	16	4	8	13	33

* No of publications

** No of citations

FUNDING STRUCTURE

Funding agencies and research budgets

The biggest national institutions responsible for drug-related projects are OKANA as well as the Ministries of Health and of Education, whose main focus is on research on use among student population. The NGO KETHEA performs usually self-financed projects. In addition, the 2nd and 3rd Community Support framework of the European social fund, Directorate General V, have been the main funding sources for social research in Greece in the last years. The community initiative EQUAL was a funding source for innovative and original research on drugs during 2001-2007.

Four out of the six research projects identified by the study's desk work were financed by national public agencies and one received funds from the European Commission. Specific research budgets for these projects are not available.

Coordination of research funding

In Greece, there is no central coordination for drug-related research. The institution for coordination of research in general – but not specifically on drugs – is the General Secretariat of Research and Technology of the Ministry of Development. Its tasks include: support to the research activities of the country's scientific research institutes, dissemination of research information nationally and internationally, promotion of cooperation with other countries and international organisations on research and technology issues, representation of Greece in relevant institutions of the European Union and establishment of new research institutions. Subject to funding availability the coordinating body on drugs, OKANA, and the ministries involved in combating drugs (Health, Education, Public

Appendix 3.1**Country Report: Greece**

Order and Justice) supervise, support and fund drug-related research projects upon request, i.e. when relevant protocols are submitted.

Priorities

The research priorities foreseen by the National Action Plan (NAP) on Drugs 2008-2012 are in the following main directions:

- The development of the “Health Services Map” of Greece, aiming at mapping all the services directly or indirectly related to health and welfare, with a special focus on drug and alcohol dependence (accordingly), the adequacy and quality of these services, the development of a database and the availability of this information to professionals and the public.
- The NAP on Drugs foresees the development of new research projects, related, on the one side, to the success of treatment and social reintegration, and on the other to epidemiological surveys on the general as well as student populations for the monitoring of substance use and related risk factors.
- The NAP on Alcohol foresees the development of IT infrastructure in hospitals and emergency services for the recording of traffic and other accidents, violence, family violence incidents related to alcohol use, and drunkenness.

HUNGARY

Summary

Although research issues are addressed in the Hungarian drug strategy, the activities in the field seem to be quite modest with a primary focus on epidemiological studies. Drug related research has been, since 2006, centrally coordinated by the Ministry of Social Affairs and Labour, which is at the same time the main funding source in the field. The visibility of drug-related publications in international journals seems to be quite limited.

History of strategic development and vision behind the development of research capacity and funding structure in the field of (drug) addiction

The era before the political shift in Hungary (1989/1990) can not be regarded fruitful concerning addiction research. Apart from a few publications in the field of pharmacology, in the 60's hardly any studies were published in this topic. From the 70's on, the number of publications was multiplied; early works appeared regarding solvent abuse and substance use of high-school students. In the second half of the 70's and the beginning of the 80's, the quantity of published works has increased, though this could be hardly called research in this period. The embargo of research regarding the topic of addictions was erased by the measure of the MSzMP KB (Central Committee of the Hungarian Socialist Workers' Party) acknowledging the presence of the drug problem in 1985. Only after this act could be launched research concerning addictions. In this epoch, the first studies regarding the substance user youth subcultures and the first epidemiologic studies were published. This period was devoted to the highlighted "Disturbances of Social Integration" research supported on a national level. A few studies from a psychological perspective have been published, though criminology and legal issues remained in the main focus of interest.

The political shift has brought a fundamental shift in the field of addiction research in all aspects as well. From the beginning of 90's, thorough epidemiological studies have been carried out and further research projects in the fields of psychology-psychiatry, social sciences and other partner sciences had been launched. Hungary joined the HBSC international research cooperation in 1986 and the ESPAD in 1995. The first nationally representative study on the adult population was conducted in 2001. In the meantime, several epidemiological studies were performed regarding special populations (prisoners, youth outside the educational system, party goers). Besides the epidemiological research in the 90's many studies in a psychological and social studies perspective were performed and studies monitoring treatment efficacy have also appeared.

The abovementioned researches, before 1999, came into existence either with the help of national funding (by individual applications) or of the Hungarian Scientific Research Fund. The boom of research was assisted by the setup of the Deputy State Secretary responsible for the coordination of drug affairs (January 1, 1999). This coordination centre have supported research by means of calling

Appendix 3.1**Country Report: Hungary**

for tenders every year since 1999, and financed applications for research with greater financial demands outside the tender system. For information on amount distributed over the years 1999-2007, please see section “Funding agencies and research budgets”.

Future strategic approaches aimed at building research capacity and funding infrastructure

At the moment, there is no governmental plan contributing to the development of the capacity or the financing of addiction research beside what can be read in the National Strategy of Hungary against drug problem, which was adopted in 2000. Nonetheless, in 2009 the new National Strategy is going to be elaborated and it is assumed that similarly to the previous strategy, it will contain such concepts.

RESEARCH TOPICS AND INFRASTRUCTURE**Key research structures involved at country level**

Most research is conducted by researchers or research groups working at universities. The following university departments should be mentioned as the most active ones: the Addiction Research Unit of the Institute of Psychology at Eötvös Loránd University¹, as well as the Institute of Behavioural Sciences and Communication Theory (Faculty of Social Sciences)², the Institute of Sociology and Social Policy at the Budapest Corvinus University³ and the Department of Social work and Social Policy at the University of Pécs⁴. Other important players that should be mentioned are: the ECHO Survey Sociological Research Institute⁵, the FACT Institute, the Institute for Psychology of the Hungarian Academy of Sciences⁶, the National Institute for Drug Prevention, and the and the National Institute of Child Health.

Based on the study’s desk work, the research projects that could be identified are mainly conducted at public/governmental organisations or at universities, namely the National Institute of Child Health and the Behaviour Research Institute at the Budapest University of Economics and Public Administration.

Key research areas

A total of 3 projects were identified that meet the inclusion criteria of the study. All three projects are classified under the research topic “Epidemiology”.

¹ <http://www.ppk.elte.hu/addictions>

² <http://www.uni-corvinus.hu/index.php?id=19217>

³ <http://web.uni-corvinus.hu/szoc/home.php>

⁴ <http://www.szocialismunka.hu/english/index.php?mode=1&id=1>

⁵ <http://www.echosurvey.hu/>

⁶ <http://www.mtapi.hu/index.php?mi=299&lang=en&>

Appendix 3.1**Country Report: Hungary**

Research area	Sub-topic	Projects	Substances
3. Epidemiology	3.1 Population based	3	Combined legal and illegal substances (3)

Research publications/visibility

In accordance with the study's inclusion criteria, a total of six scientific publications could be identified for the years 2001/2002 as well as 17 publications for the years 2005/2006. These papers mostly address basic brain science topics as well as epidemiological themes. In recent years also clinical and research assessments mainly concerned with pharmacological aspects have been published.

Research area	Year of publication							
	2001		2002		2005		2006	
	P*	C**	P	C	P	C	P	C
A Basic Brain Science					3	23	4	47
B Epidemiology and surveys			1	5	1	1	2	3
C Clinical and research assessments			1	17	4	18	2	8
D Prevention								
E Demand and harm reduction								
F Criminological and drug supply								
G Policy and Legal frameworks								
H Reviews	2	3	2	7			1	1
Total	2	3	4	29	8	42	9	59

* No of publications

** No of citations

FUNDING STRUCTURE**Funding agencies and research budgets**

Currently the main sponsor of Hungarian drug-related research is the Ministry of Social Affairs and Labour.

Another important player who has provided financial support for drug-related research is the Deputy State Secretary (see also "History of strategic development and vision behind the development of research capacity and funding structure in the field of (drug) addiction"). The amounts distributed through tenders by this centre are presented on the following table (A few greater-scale research was financed directly by the National Focal Point (since 2004) or the National Institute for Drug Prevention (since 2001); these are not included on the table):

Appendix 3.1**Country Report: Hungary**

	1999	2000	2001	2002	2003	2004	2005	2006	2007
Grants (€)	45,490	68,846	62,724	105,568	78,892	205,419	132,634		141,600
Individual funding	0	104,022	7,402	9,589	39,446	29,799	0	31,200	0

The Ministry had not controlled – directly – the subject of the funded research until the year, 2005, and thus, had not directly intervened into research. Nevertheless, it had initiated itself research with strategic importance (ESPAD, HBSC, monitoring of prevention programs) and financed them by resources outside the tender system (these are not necessarily included in the previous table).

Conclusively, between 1995 and 2005 it was possible to apply for a tender irrespectively of the focus of research. In 2006 there were no tenders published, but research institutes were appointed to carry out research in specific issues. In 2007-2008 the tender system was restored, though as a new solution, only applications regarding specific areas appointed by the Ministry were accepted. In this period no national financial resources other than those of the department for the coordination of drug affairs were available for the researchers, however, it was still possible to apply for tenders at the National Research Funds.

In the last 5 years, the annual budget frame the Ministry of Social Affairs and Labour varied between 75,500 € and 188,700 €. The maximum available amount per research project was 3,800 – 11,300 €. Research programmes of high priority and of primary importance (such as, the ESPAD, national adult population surveys) are financed individually from the ministry resources (EMCDDA Hungarian National report on Drugs, 2007); this money is additional to the sum mentioned above.

Projects have been also financed by the National Office for research and Technology⁷ as well as by the Hungarian Scientific research Fund.⁸

Coordination of research funding

The main coordination body of Hungarian drug-related research is the Ministry of Social Affairs and Labour, which is presently also responsible for drug coordination in general. Till 2006, an open tendering procedure was being applied for the financing of research projects; whereas from 2006 onwards the subjects of addiction research is stated yearly, and researchers can only apply for these subjects.

Priorities

The topics of the tenders for research related to the drugs problem opened by the Ministry of Social Affairs and Labour in the years 2004 and 2005 could be indicative for the priorities in the field.

⁷ <http://www.nkth.gov.hu/english>

⁸ www.otka.hu

Appendix 3.1**Country Report: Hungary**

For 2004: The institutionalization of prevention; the institutionalization of harm reduction; research on drug prevention in the context of social sciences; development of the treatment system; changes of the legal system and their consequences; research on attitudes towards drug users and drug use in the general population; characteristics of drug use of vulnerable groups.

For 2005: Identification of especially vulnerable people, hard to reach groups and problem drug users not involved in treatment (e.g. ethnic minorities, sex workers, minors, prisoners, etc); study on the characteristics of cocaine and amphetamine use; development of a research methodology of poly-drug use; study on the identification of co-morbidity of drug use and psychiatric problems and its possible treatment; mapping of all actors of treatment (e.g. treatment capacity, therapeutic needs of different groups of drug users, different interventions for different groups, composition of treatment personnel, needs of human resources, etc.); study on the prevalence, prevention and treatment of HIV/AIDS, hepatitis and tuberculosis infections related to drug use.

Moreover, an individual chapter of the national drug strategy is dedicated to the importance of monitoring. The focus of drug related research in the last five years was on epidemiology (EMCDDA Hungarian National Report on Drugs, 2007).

IRELAND

Summary

Research on drug issues has been put on a firm footing in Ireland over the past decade. There has been an overall strategic approach to the development of research and the importance of investing in the full range of research has been emphasised through a number of strategic documents. The Health Research Board has adopted strategic responsibility for health research and in addition the National Drugs Strategy established the National Advisory Committee on Drugs that has responsibility for specific drugs research and has overseen a national programme of applied drugs research.

History of strategic development and vision behind the development of research capacity and funding structure in the field of (drug) addiction

In 2001 Ireland published its first Strategic Health Research document titled "Making Knowledge Work for Health". The Department of Enterprise, Trade and Employment has national responsibility for co-ordinating research and chairs the Inter Departmental Committee on Science Technology and Innovation which in turn reports to a cabinet subcommittee. The Advisory Council on Science Technology and Innovation has recently published a document "Towards Better Health: Achieving a step change in Health Research in Ireland". The Health Research Board is also an active member of the Standing Committee on Research Funding Bodies.

The body with specific responsibility for drug research is the National Advisory Committee on Drugs.

Future strategic approaches aimed at building research capacity and funding infrastructure

The alcohol and drugs research unit as part of the Health Research Board conduct work as part of their links as Focal Point for the EMCDDA. They are responsible for the surveillance systems in relation to drug treatment (National Drug Treatment Reporting System) and drug related deaths (National Drug Related Deaths Index). They publish a research dissemination document titled Drug Net Ireland which provides reports on new research in the drugs field.

The National Advisory Committee on Drugs is funded directly by the Department of Tourism, Sport and Recreation and reports to the Minister of State with special responsibility for the National Drugs Strategy. A budget of three mill. Euro was allocated for its activities.

The principal functions of the NACD are: (1) review current information and research capacity, (2) identify gaps in knowledge and understanding, (3) provide analysis and interpretation of research findings, (4) implement the three year programme of research and evaluation liaising with all the

Appendix 3.1**Country Report: Ireland**

relevant agencies and avoiding duplication of work; co-ordinate and advise on appropriate research projects; commission research projects.

One of the stated aims of the NACD is to build research capacity in Ireland through the provision of a number of research grants to extend the knowledge base and build capacity in drugs research. In addition at an early stage the NADC provided support to Science Foundation Ireland to support basic laboratory science work. The NACD has reported to government recommending that a fund be established for bench research in order to support further development of and expansion of the scientific research capacity in Ireland.

RESEARCH STRUCTURE**Key research structures involved at national level**

The key funding bodies are the Health Research Board and the National Advisory Council on Drugs but in addition the Advisory Council on Science and Technology through its functional units supports some basic science research in molecular genetics, psychopharmacology and related research topics.

There is a network of University and Research Institutions in the Republic of Ireland and a small number are involved in drugs research; mainly Dublin University, University College Dublin and the University of Maynooth. There are also a number of treatment agencies both public sector and non governmental agencies who have participated in research projects frequently but not exclusively in collaboration with research institutions.

Key research areas

A total of 16 research projects were identified that meet the inclusion criteria of the present study.

Research area	Sub-topic	Projects	Substances
2. Aetiology and course	2.1 Aetiology	3	Substance not specified (2), Cannabinoids (1)
3. Epidemiology	3.1 Population based	5	Combined legal and illegal substances (5)
	3.3 Other specific target groups	6	Substance not specified (4), Combined legal and illegal substances (2)
4. Intervention	4.3 Treatment	2	Opioids (2)

Appendix 3.1**Country Report: Ireland****Research publications/visibility**

A total of 66 publications were identified as meeting the inclusion criteria in all four years. For all years “epidemiology or survey research reports” were the type of publication most frequently identified. However, more notable is the lack of any publication reports on universal prevention projects and the very limited number of “policy and legal” or “criminological and drug supply” publications and associated citations. The “review” papers identified were on clinical disorder, cultural, and epidemiological issues.

Research area	Year of publication							
	2001		2002		2005		2006	
	P*	C**	P	C	P	C	P	C
A Basic Brain Science	9	150	1	6	2	12	2	12
B Epidemiology and surveys	10	127	5	22	10	86	5	19
C Clinical and research assessments	2	117	2	20	3	17	5	16
D Prevention								
E Demand and harm reduction					2	6	2	14
F Criminological and drug supply					1	1		
G Policy and Legal frameworks								
H Reviews	1	5	2	10	2	30		
Total	22	399	10	58	20	152	14	61

* No of publications

** No of citations

FUNDING STRUCTURE**Funding agencies and research budgets**

The key funding through the NDAC are presented in the tabke below.

Year	Amount of funding
2003	1,123,775 €
2004	867,457 €
2005	678,715 €
2006	1.269,469 €
2007	1,232,481 €

There has not been any key research funding through the EU Framework programme. Some project work in the Criminal Justice Area supported police networking with other European Member state police forces on future drug trends.

Coordination of research funding

The Health Research Board and the National Advisory Committee on Drugs are the key conduits for drugs research and the NADC has the role along with the Health Research Board of representing the interests of drugs research. The Health Research Board is also an active member of the Standing Committee on Research Funding Bodies.

Priorities

The current priorities lie within developing and furthering the evidence base for treatment and rehabilitation and developing a better understanding of the consequences of drug use and drug problems in the Irish population. The other key priority is to build drugs research capacity in Ireland.

ITALY

Summary

Despite many challenges in the organisation and delivery of both research and policy responses to drug problems in Italy there is a substantial output of drug related research. A recent large scale drug treatment outcome study is one of the largest of such studies in Europe. There is some high quality basic science and high quality epidemiological and evidence based work underway.

History of strategic development and vision behind the development of research capacity and funding structure in the field of (drug) addiction

Traditionally there has been limited funding for drugs research in Italy despite the substantial nature of the problem. There has been little coordination or prioritisation of problems and strategic responses. More recently the establishment of the National Research Center has supported some important basic science research but there is limited coordination of the funding for more applied and related aspects of epidemiology and service monitoring.

Future strategic approaches aimed at building research capacity and funding infrastructure

The overall approach to strategic development is limited and there is not a single structure with the responsibility for building research capacity. However there is a good mix of basic science and applied approaches to research and drug policy and informally the different stakeholders are keen to see a future emphasis on translation work with a focus on bench to bedside work.

RESEARCH TOPICS AND INFRASTRUCTURE

Key research structures involved at national level

The National Research Council (CNR) is a public organization; its duty is to carry out, promote, spread, transfer and improve research activities in the main sectors of knowledge growth and of its applications for the scientific, technological, economic and social development of the country. One of CNR institutional duties is the carrying out of research activities in pursuit of excellence and strategic relevance within the national and international ambit, through its network of research institutes. The network of CNR research institutes, which are distributed all over the national territory, is multidisciplinary: it has competences in the field of health and biology, of computer science, of

Appendix 3.1**Country Report: Italy**

environment and climate, of chemistry and physics, of behavioural, economic and social sciences. During the last few years, there has been a process of reorganization through unifications and divestments in CNR research network. In 1999, there were 314 research bodies (Institutes and Centres) operating within University and in synergy with them. The process of reorganization, which ended in 2002, led to the creation of 107 institutes, divided into centres and territorial sections.

The geographical division of the new institutes centres is distributed as follows: 31 institutes in the North; 45 institutes in the Centre and 31 institutes in the South.

The Institute of Neuroscience carries out neurobiological research into aspects of drug dependence and is internationally recognised for the quality of the work undertaken.

There has recently been established a National Institute on Drugs specifically focussing on aspects of research on Drug Dependence.

The Institute Superiore de Sanita is the public health arm of the National Research approach and adopts an evidenced based approach to the translation of new guidelines into practice. The Cochrane Drug and Alcohol Group and a range of other epidemiological work relating to drug use and drug dependence is undertaken with this structure.

Key research areas

Four research projects were identified that met the inclusion criteria of our study.

Research area	Sub-topic	Projects	Substances
3. Epidemiology	3.1 Population based	3	Combined legal and illegal substances (3)
4. Intervention	4.2 Person-oriented prevention	1	Combined legal and illegal substances (1)

Research publications/visibility

A total of 285 publications were identified as meeting the inclusion criteria in all four years. For all years “clinical and research assessment” and “epidemiology or survey research reports” were the type of publication most frequently identified. However, more notable is the limited number of publications on “universal prevention” initiatives, and “policy and legal” or “criminological and drug supply” research reports. The “review” papers identified across the four years predominately focused on related clinical disorders or treatment related issues.

Appendix 3.1

Country Report: Italy

Research area	Year of publication							
	2001		2002		2005		2006	
	P*	C**	P	C	P	C	P	C
A Basic Brain Science	17	455	16	364	16	113	16	64
B Epidemiology and surveys	16	243	11	181	11	62	13	90
C Clinical and research assessments	21	301	14	167	20	157	27	158
D Prevention							2	4
E Demand and harm reduction	2	17	9	137	8	30	10	42
F Criminological and drug supply			2	23				
G Policy and Legal frameworks								
H Reviews	6	161	16	140	19	47	13	80
Total	62	1177	68	1012	74	409	81	438

* No of publications

** No of citations

FUNDING STRUCTURE

Funding agencies and research budgets

It was not possible to clarify a core budget for the total national research initiatives or any specific budget targeted for drug related research. Overall Italy expends 0.4% of GDP on research which is comparatively low. There is no overall figure available for national expenditure on drugs research.

Coordination of research funding

The basic science work is coordinated through the National Research Centre, but there is a multiplicity of local funding sources and private funding bodies, and municipal authorities who support some drug related research.

Priorities

There does not appear to be a formal policy to decide what the key priorities for research in Italy are. But the key direction of travel is to expand the evidence base and to apply the evidence in practice and to develop a strategy of translational research.

LATVIA

Summary

Latvia has a short history of drug-related research. Up to now, about 90% of national treatment demands are due to alcohol related disorders. Illicit substances are only of subordinate importance. Those research projects that deal with drug-related issues primarily focus on gathering epidemiological data in different national samples (adults and adolescents). In general, Latvia seems not to apply for EU funds due to a lack of capacity. Moreover, participation in EU projects is rare because Latvia is not considered a relevant partner by third parties.

History of strategic development and vision behind the development of research capacity and funding structure

Not much is known about the existence of drug research and funding structures before 1991 when Latvia became independent. It can be assumed that like in most Eastern European countries research activities and funding was primarily focussed on alcohol. There existed no drug strategy what so ever. After 1991 the drug action plan was developed which is still in force, but more focussed on drug policy rather than drug research.

Future strategic approaches aimed at building research capacity and funding infrastructure

The restructuring of the Public Health Agency (PHA) in 2007 fostered its coordinating role with regard to drug related research. This, however, concerns mainly social determinants and epidemiology of drug use and not basic or medical oriented research activities.

RESEARCH TOPICS AND INFRASTRUCTURE

Key research structures involved at country level

Most social drug research (and that on other addictions) in Latvia has been carried out by the Institute of Philosophy and Sociology at the University of Latvia (IPHS) and the Institute of Sociological Research (ISR), who are specializing in youth research in general as well as in social research on addictive behaviours. Basic and applied research is conducted by the Institute of Organic Chemistry. To a limited extend research on medical issues is addressed by the University P Stradina. Moreover, the Latvian national Focal Point of the EMCDDA plays a significant role in monitoring and analysing the public health situation in the country, and in disseminating drug-related research findings.

Appendix 3.1**Country Report: Latvia****Key research areas**

Five research projects in the field of illicit drugs were identified that were conducted within the timeframe of interest (2001 to 2006). All these projects can be subsumed under the broad research area “epidemiology” and aimed at assessing drug use prevalence in general population (and in part also in specific target group) samples. Two projects were concerned with different illegal substances; three projects covered both licit and illicit substances.

Research area	Sub-topic	Projects	Substances
3. Epidemiology	3.1 Population based	5	Combined legal and illegal substances (3), Multiple illegal substances (2)

The key informants noted that additional regional and small-scaled studies are conducted (partly funded by international organisations like e.g. UNODC, partly funded by municipalities), however, in some cases results are not even published in Latvian (much more so in international journals).

In several cases programmes have been developed or evaluated without subsequent funding for their implementation. This underlines the lack of an underlying strategy and comprehensive concept on drug-research.

Research publications/visibility

No publications that meet the study’s inclusion criteria could be identified for Latvia. According to the key informants close to 100% of the publications are available in Latvian or Russian.

FUNDING STRUCTURE**Funding agencies and research budgets**

The state budget funds most drug-related research in Latvia, particularly as the main studies at national level are included in the State Program on Drug Control and Drug Addiction. Moreover, the municipality of Riga is also a significant actor in funding, with the objective of improving prevention activities at city level. The Latvian Scientific Foundation funds projects, but its budget is very limited. Funding for studies on risk behaviours is provided by the state budget and international organizations, e.g. UNDP, UNODC, EMCDDA while basic and applied research is mainly financed by pharmaceutical companies. Before Latvia joined the EU, United Nations (UNODC, UNDP and PHARE program of the European Union) were funding some drug-related research. The major UN activities were in the field of developing school prevention programmes and research within this framework. In 2006 UNODC

Appendix 3.1**Country Report: Latvia**

started a three-year project on HIV prevention among drug users and in prisons. In the coming years funding for research activities is expected to be available by means of small grants.

The three major Latvian research projects in the field of illicit drugs were funded by national or European public agencies. For example, the financing of two projects (General Population Survey '03 completely and ESPAD '03 partly) was part of the European Commission PHARE Programme.

According to the interviews with Latvian key informants, the following specific information is available on funding and budgets of drug-related research projects.

Drug-related research project	Funding Agency	Year	Budget
GPS	2003 completely EC	'03 & '07	2 x 35,900 € (25,000 LVL)
ESPAD	2003 partly EC	'03 & '07	2 x 35,900 € (25,000 LVL)
Riga City Study (motivation in recreational settings)	Riga city council	'01	14,360 € (10,000 LVL)
Risk and protective study 15/16 years	Riga city council	'06 & '07	> 14,360 € (10,000 LVL)
Prevalence of HIV and other infections and risk behaviour among injecting drug users and their main sexual partners in Latvia, Lithuania and Estonia	Partly EC	'06 – '09	1,314.560 € (only about 1/3 dedicated to research issues)
Cohort study PDUs	EMCDDA	'06 – '08	14,360 € (10.000 LVL)
Health at the work place	ESF	'09 – '11	100,000 €
Study on drug use in recreational settings	EMCDDA	'07	14,360 € (10.000 LVL)
Motivational programmes for social exclusion in risk groups	Partly EC	'02, '03 & '05	12,000 €

All together between 2000 and 2007 the budget for drug research amounts to approximately 40,000-50,000 LVL (56,915-71,144 €) per year.

Coordination of research funding

There is no central co-ordinating body for drug-related research responsible for allocating funding or co-ordinating drug-related research in Latvia. On the other hand, the PHA is the main actor in monitoring and analysing the public health situation in the country, in coordinating the day-to-day monitoring work and in providing and collecting information on illicit and licit drugs. Presently the PHA coordinates the major epidemiological research studies, which are state funded. The role of the PHA is more of a coordinating nature rather than conducting research on its own. Recent developments suggest that PHA could take the responsibility of co-ordinating drug-related research (also in terms of funding) in the future. A specific addiction research funding programme does not currently exist.

Priorities

The major focus is presently on epidemiological research. It is expected that in the near future, drug related research will not be given high priority.

LITHUANIA

Summary

Drug-related research does not seem to be very developed in Lithuania. Nonetheless, drug policy documents include scientific research and the development of a drug information system among their priorities. Most research projects and studies that have been conducted to date aim to feed the EMCDDA's five key epidemiological indicators. Research is financially supported by national (state) as well as by international sources.

History of strategic development and vision behind the development of research capacity and funding structure in the field of (drug) addiction

Lithuania's national policy on drug control and prevention of drug addiction is established in the National Programme on Drug Control and Prevention of Drug Addiction 2004–2008 adopted by the Parliament of the Republic of Lithuania. One of its priority directions with regard to drug control and drug addiction prevention is scientific research and development of the information system by applying more widely state-of-the-art, scientifically grounded and efficient early diagnostics, treatment and rehabilitation methodologies and educational programmes to drug users.

Future strategic approaches aimed at building research capacity and funding infrastructure

Among the goals of the new National Programme on Drug Control and Prevention of Drug Addiction 2009–2016 are the implementation of monitoring and the assessment of drug use, of its consequences and of the supply and demand reduction measures, as well as the development of scientific research.

RESEARCH TOPICS AND INFRASTRUCTURE

Key research structures involved at country level

The Drug Control Department under the Government of the Republic of Lithuania each year collects information from various government and NGOs, universities, institutes about newly implemented projects and studies in drug field. It also implements various project and researches.

Appendix 3.1

Country Report: Lithuania

Key research areas

Most research projects and studies that have been conducted in Lithuania are related with data collection for the five EMCDDA key epidemiological indicators. Moreover, research is oriented to collect and analyse information about the drug prevalence in different groups and the spread of drug related infection diseases, to investigate the narcotic and psychotropic substances' toxicity and their impact on human health, various types of treatment and prevention efficiency, legal acts analysis.

Based on the study's inclusion criteria three research projects could be identified for Lithuania, all in the field of epidemiology.

Research area	Sub-topic	Projects	Substances
3. Epidemiology	3.1 Population based	3	Combined legal and illegal substances (3)

Research publications/visibility

A total of three scientific articles have been published in Lithuania in the years defined by the study's inclusion criteria. These papers address epidemiological issues; a systematic review has been also published.

Research area	Year of publication							
	2001		2002		2005		2006	
	P*	C**	P	C	P	C	P	C
A Basic Brain Science								
B Epidemiology and surveys	1	12			1	4		
C Clinical and research assessments								
D Prevention								
E Demand and harm reduction								
F Criminological and drug supply								
G Policy and Legal frameworks								
H Reviews							1	1
Total	1	12			1	4	1	1

* No of publications

** No of citations

FUNDING STRUCTURE

Funding agencies and research budgets

In 2007, the allocations from the national budget for coordination, scientific research, development of the information systems and international cooperation in the drug field accounted for 239,700 € or app. 5% of total funds of the national budget were allocated for government institutions, implementing the annual in the frame of the National Programme on Drug Control and Prevention of Drug Addiction 2004–2008. Government institutions or universities can receive funds from the national budget. Financial support is also provided by various international (for example the UNODC) and EU funds or projects.

Coordination of research funding

The co-ordination of research funding in Lithuania is not centralised.

Priorities

The national are stipulated in the drug policy documents and are explicitly mentioned in the section “History of strategic development and vision behind the development of research capacity and funding structure in the field of (drug) addiction”.

LUXEMBOURG

Summary

Luxembourg is a small country and has developed a broad national strategy to improve the research capacity but the component contribution to drugs strategy and drugs research is limited. The key areas of interest is to develop a broader more evidenced base approach to all aspects of drug policy and related interventions.

History of strategic development and vision behind the development of research capacity and funding structure

In 1999 the National Research Fund (NRF) was launched to promote research and innovation in Luxembourg. A Committee of experts drafts research proposals which are adjudicated upon by a Scientific Council and Board of Administration and submitted to the Government for financed. Since 2000, the NRF has initiated multi-annual research programmes have across a range of different domains. The current health initiative BIOSAN has a particular focus on age related diseases and a budget of 8,500.000 €. In 2006 a foresight exercise was conducted in order to define future research priorities and incorporate the views of all the different parties as well as of Luxembourg society in general.

Future strategic approaches aimed at building research capacity and funding infrastructure

Accompanying the aims of the National Research Fund described above a number of support initiatives was established to strengthen in general scientific research in Luxembourg (see respective table below). In addition from 1st October 2008, a new support scheme "Aides à la Formation-Recherche (AFR)" will commence. Its purpose is to support PhD and postdoctoral research training in Luxembourg and abroad.

Appendix 3.1**Country Report: Luxembourg**

Table: Aims of the National Research Fund

1. Promotion of scientific culture
2. Training and mobility
a) Active participation of researchers in scientific conferences
b) Training for researchers (including summer-schools)
c) Mobility of researchers
3. Organisation of scientific conferences in Luxembourg
4. Scientific publication, including PhD theses
5. National research coordination
a) Thematic and structural research platforms
b) Public data access for 5. National research coordination researchers

The Ministry of Culture, Higher Education and Research oversees the coordination of internal, and European and International research and through the Ministry of Health and the Public Research Centre of Health (CRP-Santé) coordinates drug related research. In 2000 a national drug coordinator was appointed to assure drug coordination between ministerial and NGOs level, with a inter-ministerial group on drugs and drug addiction (“GIT” Groupe Interministériel Toxicomanie) being formed in 2006 to define the National Drugs Strategy. In support of the activities of the National Research Fund CRP-Santé undertakes the dissemination of funding from a range of sources including state funds, financial contributions from third institutions and donations and legacy contracts.

RESEARCH TOPICS AND INFRASTRUCTURE**Key research areas**

A total of 3 projects were identified that meet the inclusion criteria of the present study.

Research area	Sub-topic	Projects	Substances
3. Epidemiology	3.2 Clinical target groups	1	Multiple illegal substances (1)
4. Intervention	4.4 Global	1	Substance not specified (1)
10. Others	10.1 Others	1	Substance not specified (1)

Research publications/visibility

A total of 5 publications were identified as meeting the inclusion criteria; all in 2005 or 2006. Four publications were either “clinical and research assessment” or “epidemiology or survey” research reports. The remaining paper was a review document about self-help internet interventions.

Appendix 3.1

Country Report: Luxembourg

Research area	Year of publication							
	2001		2002		2005		2006	
	P*	C**	P	C	P	C	P	C
A Basic Brain Science								
B Epidemiology and surveys					1	11	1	5
C Clinical and research assessments					1	12	1	8
D Prevention								
E Demand and harm reduction								
F Criminological and drug supply								
G Policy and Legal frameworks								
H Reviews							1	7
Total					2	23	3	20

* No of publications

** No of citations

FUNDING STRUCTURE

Funding agencies and research budgets

The funding for research comes through the council of science and the Ministry of Health, and related ministries but no specified budget is allocated and expenditure is based on particular projects.

Coordination of research funding

The National Drug Strategy outlines priorities around developing a better research infrastructure and encourages support to enable the development of research capacity with an aim to support national and international research collaboration.

Priorities

The priority is to develop a national research capacity ranging from basic science to an applied aspect. There is a particular emphasis given to the need for developing a technology transfer approach where basic and social research is communicated and applied to a broader field. Priority is also given to the need to develop an evaluation framework for all national plans in order to assess the impact of national drug policy.

MALTA

Summary

Malta is a small country and has the advantage of small size in organising and coordinating, activity. There is a strong push to develop some treatment outcome studies and to improve the epidemiological framework to better understand the prevalence and nature of problems in Malta. There is a limited research infrastructure and much of the academic activity is pursued by active and committed practitioners.

History of strategic development and vision behind the development of research capacity and funding structure in the field of (drug) addiction

Malta is a small country with a strong commitment to tackling drug problem but has limited resources to expend on public health and drug related research and much of the research that is undertaken is carried out through the auspices of the existing services and is related to practical aspects of treatment delivery and aspects of monitoring drug trend and policy responses to drug problems.

Future strategic approaches aimed at building research capacity and funding infrastructure

The Maltese Council for Science and Technology is the national Advisory Body to the Government on Science and Technology Policy. Further information on this issue is provided in the section “Key research structures involved at national level”.

RESEARCH TOPICS AND INFRASTRUCTURE

Key research structures involved at national level

The Malta Council for Science and Technology is the national advisory body to the Government on Science and Technology Policy and the key link for the EU Framework programme. The MCST has published a strategic document on research and innovation in Malta. In this document there is some reference to health research but much of the approach covers other aspects of social and economic development in Malta. The Government Departments involved with Public Health research are the Ministry of Health, the “Elderly and Community Care and Drug addiction” is listed as one of the key priorities along with “Obesity, Mental Health and Diabetes” and “Cancer Research”.

Appendix 3.1**Country Report: Malta****Key research areas**

A total of 5 research projects, all epidemiological in focus were identified that meet the inclusion criteria of the present study.

Research area	Sub-topic	Projects	Substances
3. Epidemiology	3.1 Population based	5	Combined legal and illegal substances (4), Opioids (1)

Research publications/visibility

Only one publication was identified that met the inclusion criteria in any of the four years: a paper reporting on a study to assess whether psychosis was more intensive and persistent among cannabis users compared with non users.

Research area	Year of publication								
	2001		2002		2005		2006		
	P*	C**	P	C	P	C	P	C	
A Basic Brain Science									
B Epidemiology and surveys									
C Clinical and research assessments					1	22			
D Prevention									
E Demand and harm reduction									
F Criminological and drug supply									
G Policy and Legal frameworks									
H Reviews									
Total					1	22			

* No of publications

** No of citations

FUNDING STRUCTURE**Funding agencies and research budgets**

The funding, limited as it is, arises from charitable sources and also from the Ministry of Health, Elderly and Community Care. To date funding was provided to assist the National Schools Drug Survey ESPAD and also funding for a general household survey of drug problems. No specific figure was obtainable for current Government spending on drug funding but overall it was estimated to be very modest.

Coordination of research funding

The Malta Council for Science and Technology takes overall responsibility for research in Malta but the practical aspects of coordination with drugs research rests primarily within the Ministry of Health.

Priorities

The priorities are for evidence based medicine, and patient and service user involvement.

NETHERLANDS

Summary

The Netherlands has an established drug misuse problem and a well-developed research infrastructure in the field. Against the background of a pragmatic and tolerant cultural context and harm reduction oriented approach to policy, there is a separation in the drug market in which cannabis is annexed (and perceived to represent an “acceptable risk” to the user) from “hard drugs” (which are seen as posing significant threats to personal and social health and functioning). The research infrastructure that has developed over the past decade has sought to stimulate high quality research in basic and applied clinical and epidemiological strands and provide support for the development of research centres and output from the traditional university sector.

History of strategic development and vision behind the development of research capacity and funding structure in the field of (drug) addiction

There have been four distinct phases charting the development of research capacity and the funding structures to support this. In the first phase before 1993, research activities in the Netherlands were restricted epidemiological investigation about drug use in the Netherlands and animal research on the underlying mechanisms of addiction. No clinical addiction research was conducted.

The second phase started in 1993 when the Ministry of Health decided to stimulate the foundation of two research institutes to start clinical addiction research in the Netherlands (1 mill. €). The third phase, started in 1997 with a bottom-up program of central funding (15 mill. €) directed at the creation of focused research centres in the field and greater integration and collegiate co-operation across the country. The focus of research development at this time was fourfold: 1) the promotion of basic (pre-clinical) science to investigate central nervous system mechanisms involved in psychoactive substance use disorders; 2) developmental psychological and sociological research aimed at identifying the nature and processes of individual susceptibility to drug involvement; 3) support for work on primary (schools-based education) and secondary prevention (the development of new therapeutic approaches); 4) a focus on treatment (the development of new treatments and the evaluation of new and existing treatments, to help rise the standards of treatment of substance dependence) essentially, the vision behind these developments was to create the funding conditions to stimulate high quality research scholarship in both basic and applied clinical and social science arenas and to establish the Netherlands as a nation with a strong international reputation. In that period, bilateral funding collaboration with the National Institute of Drug Abuse (NIDA) in the USA started, indicating the success of this vision.

Appendix 3.1**Country Report: Netherlands**

The fourth phase of addiction research in the Netherlands started in 2006 with the second bottom-up addiction research programme called Risk Behaviour and Dependency Programme (13 mill. €) and is now underway and will be completed in 2010. The programme focuses on risks and harms of problematic cocaine, cannabis and polydrug use. There is an epidemiological focus to identify influences on the natural history of substance dependence.

Future strategic approaches aimed at building research capacity and funding infrastructure

There is recognition of the need for continued investment in research capacity at the University and Institute level. Moreover, improved links with the Ministries of Justice and the Ministry of Internal Affairs (police and customs organisations) is identified as a priority so that a coordinated supply and demand reduction approach can be underpinned and informed by research evidence.

RESEARCH TOPICS AND INFRASTRUCTURE**Key research organisations involved at national level**

Many universities departments and institutes carry out drug-related research in the Netherlands. Some of those most actively involved are the Amsterdam School for Social Science Research (ASSR) at the University of Amsterdam, the Department of Psychiatry at the Academic Medical Center of the University of Amsterdam, the University Medical Centre and Rudolf Magnus Institute of Neuroscience at Utrecht University, the Institutes of Psychology, Health Policy, Management and Psychology at Erasmus University Rotterdam or the Departments of Psychiatry and Neuropsychology at Maastricht University, and Tranzo, Scientific Centre for Transformation in Care and Welfare.

In addition, drug research is carried out by several institutes allied to universities that are often specialised in the field of drugs and drug use, i.e. the Amsterdam Institute for Addiction Research (AIAR), the Scientific Bureau on Lifestyle, Addiction and Related Social Developments (IVO) associated with the Erasmus University Rotterdam and Maastricht, CVO Research, Education, Training, Consultancy and Cooperation associated with the University of Utrecht, the Nijmegen Institute for Scientist-Practitioners in Addiction (NISPA) associated with the Radboud University Nijmegen, and the Bonger Institute for Criminology associated with the University of Amsterdam.

Other important players are the Netherlands Institute of Mental Health and Addiction (Trimbos-instituut) in Utrecht, Bureau Driessen in Utrecht, bureau Intraval in Groningen, and Parnassia Addiction Research Center (PARC) associated with the Parnassia Mental Health Institute in Den Haag

Appendix 3.1

Country Report: Netherlands

Key research areas

A total of 12 research projects were identified that meet the inclusion criteria of our study. The major research topic is “intervention” followed by “epidemiology”. The topic “drug mechanisms, effects and methods of detection” is covered once.

Research area	Sub-topic	Projects	Substances
1. Drug mechanisms, effects and methods of detection	1.2 Toxicology	1	Other stimulants (1)
3. Epidemiology	3.1 Population based	3	Combined legal and illegal substances (3)
4. Intervention	4.3 Treatment	8	Opioids (5), Multiple illegal substances (2), Cannabinoids (1)

Research publications/visibility

A total of 227 publications were identified for all four years. The majority of the papers found were research reports on either “epidemiology research and prevalence surveys” or “clinical and research assessments”. The “basic brain research” papers identified were reports on animal based research into either pharmacological, behavioural or neurotoxicity issues. Overall the pattern of research report publications across all four years is similar. The review papers found were almost exclusively about treatment related issues, neurobiological and pharmacological topics and clinical disorder issues.

Research area	Year of publication							
	2001		2002		2005		2006	
	P*	C**	P	C	P	C	P	C
A Basic Brain Science	4	298	2	150	6	56	5	21
B Epidemiology and surveys	14	272	16	465	15	122	20	113
C Clinical and research assessments	16	227	13	149	18	235	29	217
D Prevention			1	31				
E Demand and harm reduction	2	23	3	31	14	46	4	14
F Criminological and drug supply			2	10	1	2		
G Policy and Legal frameworks								
H Reviews	5	55	11	122	16	128	10	49
Total	41	875	48	958	70	589	68	414

* No of publications

** No of citations

Key informants recognise that the conversion of research funding into peer reviewed publications is disappointing. Prevention-oriented studies are mainly published at a national level - and may often be

Appendix 3.1**Country Report: Netherlands**

quite influential in this form domestically - but have not to date been translating into academic journal communications to the international scientific and policy audience.

FUNDING STRUCTURE**Funding agencies and research budgets**

The Dutch funding system for addiction research is complex. During the past decades the largest flow of research money in addiction research was indirect. Expenditures from the Ministry of Health, Welfare and Sports and (to a much smaller extent) from the Ministry of Justice, targeting social research in several domains, including addiction research, are delegated to an intermediary organisation, the Netherlands Organisation for Health Research and Development (ZonMw). The Ministry of Health, Welfare and Sport, the Ministry of Justice, ZonMw and the Netherlands Organisation for Scientific Research (NWO) is currently sponsoring research within the Netherlands on a four year programme (2006-2010) in which 13,000,000 € are being deployed for research projects. In addition, the Ministries directly fund separate large research projects or programmes outside the scope of ZonMw. Municipalities also directly fund some drug related studies that are in their interest, for example on public nuisance, drug consumption rooms, hostels for drug users or experimental outreach for crack users in the street.

The majority of drug-related research projects in the Netherlands is funded by national public agencies or other national organisations (e.g. the National Organisation for Health Research and Development ZonMw). Moreover, support from the European Commission plays some role, mainly through funds from DG SANCO and DG RTD. Detailed total research budgets are available for 5 of the 12 identified projects. Single budgets vary from 100,000-500,000 € for most projects to a maximum of 2,500,000 € for one very specific treatment study.

EC funded projects

Funding agency	Projects	Funding structure	Funding programme	Funding volume
5 DG SANCO	3	Single project (3)	Health research budget (3)	1,147,719 €
6 DG JLS	1	Single project (1)	Criminal justice research budget (1)	155,826 €
20 EC not specified	1	n.a.	n.a.	n.a.
Total				1,303,545 €

Coordination of research funding

An explicit national policy for addiction research in the Netherlands does not exist but several organisations are active in research funding. First, judging and funding research has partly been delegated to intermediary organisations that are judging research proposals in several scientific domains. In addition, several Ministries are also funding research, especially monitoring studies and other activities (e.g. the National Drug Monitor). There is a national arrangement for funding scientific research (apart from studies funded by universities) that includes a specific research programme on addiction. This arrangement has been institutionalised within the Netherlands Organisation for Health Research and Development ZonMw.

In European framework programmes, Dutch drug-related research programmes are usually funded under health or criminal justice labels (DG SANCO: Public Health Programme, Strand 3 “Promoting health and prevent disease through addressing health determinants across all policies and activities”; DG JLS: Programme for police and judicial co-operation in criminal matters AGIS).

The funding process involves the initial submission of short letters of intent which outline the research questions, proposed study design and measures. A funding committee provides feedback on these outlines and either discourages or encourages the submission of a full funding application. Applicants who are discouraged - due to perceived uncompetitiveness - are, nevertheless, entitled to submit a full application if they wish. Full proposals are sent out for international peer review and the funding committee decides about awarding of proposals based on these reviews and a rebuttal to these review by the researchers. The lead time from the call for proposals to award is approximately 9 months. In a recent funding process, there were 53 letters of intent received from which 27 full proposals were considered and 11 awards. Generally, about one project in five encounters operational difficulties. These difficulties include changes in local circumstances relating to the research question (e.g. changes in local drugs markets), problems with subject/participant recruitment, and local study coordination problems.

Priorities

Key informants perceive that there are many cross-border issues affecting several or even the majority of member states in the EU which could benefit from a new research infrastructure. Efficient use of scarce research resources can be affected when a topic is subject to high-quality study in more than one cultural and economic context. An example is the ESPAD multi-national substance use prevalence and health survey. Further work to develop novel primary and secondary interventions using several EU partners could generate valuable learning about programme effectiveness and delivery questions and avoid a duplication of effort. On the other hand, there is also a perception among researchers that the process of applying for EU research support is cumbersome and could be simplified. There is also a suggestion to identify research questions that are needed be addressed on one member state and not others - reflecting sentinel or newly emerging issues (eg. the study of

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Country Report: Netherlands

chemical precursors and the manufacture and distribution of amphetamine-type stimulants; the study of drug supply routes into and within the EU).

POLAND

Summary

Drug related research in Poland was initiated in the early 1970's with a focus on epidemiology. State agencies are the primary funding sources. Universities and research institutes are the most active players in the field of drugs. To date no central coordination of research on drugs exist; however a promising venture towards this direction constitute the efforts for the establishment of the Polish Society for Research on Addictions. The latest national drug strategy includes among its main objectives research and monitoring.

History of strategic development and vision behind the development of research capacity and funding structure

Drug abuse as a social problem emerged in Poland in the late 1960s. A generation of post-war baby-boomers questioning basic values of the generation of their parents claimed to use drugs as a symbol of their cultural and political identity. Since availability and affordability of imported drugs were very low indeed, there were more symbols than drug taking in drug abuse of those times. First epidemiological surveys on drug use among university students were carried out in the beginning of the 1970s. Around same time, the Department of Studies on Alcoholism and Drug Dependence was established at the Institute of Psychiatry and Neurology, Warsaw. Drug research mushroomed around the mid-1980s funded by a special inter-sectoral research grant on alcohol and drug problems. Drug research covered drug epidemiology as well as treatment and pharmacological studies. Based on this a comprehensive drug law was eventually adopted. Its most controversial provision was the depenalisation of drug possession.

In the beginning of the 1990s, during the economical recession funding of drug research almost ceased. Some drug research, including applied studies, was continued thanks to commitment of international organisations such as the WHO and the European Commission.

For most of the time, however, funding of research on illegal drugs was first of all provided by the Ministry of Health and by the Scientific Research Committee, which has recently been changed to the Ministry of Science and Higher Education. An important contribution in this field has been brought by the National Bureau for Drug Prevention, which was established by the Minister of Health around the mid-1990s and which offers a number of research grants.

Apart from state funding and EU funding programmes there are no other sources available such as programmes from foundations, scientific societies or the industry. There is also no state independent funding available comparable to the German Research Foundation or the Academy of Finland.

Future strategic approaches aimed at building research capacity and funding infrastructure

The National Bureau for Drug Prevention (NBDP) funds research mainly conducted by the Institute of Psychiatry and Neurology. The profile of research corresponds with the activities of the National Programme for Counteracting Drug Addiction. NBDP also announces call for tender for organisations interested in carrying out drug-related research. The main role of this call for tender is to extend the range of research topics and to invite new partners. Since 2008 there have been three calls for tenders.

There are discussions of structural changes at the universities that may help to facilitate research capacities and foster young researchers; for example abolishing the postdoctoral lecture qualification as prerequisite for becoming professor in order to attract more young researchers to higher academic posts or to stimulate funding activities by creating excellence centres with an improved financial budget. But overall no major changes in research capacities and funding infrastructure are expected.

Moreover, the Polish Society for Research on Addiction has been established whose mission is to initiate and conduct scientific research on problems related to addictions, including interdisciplinary studies.

RESEARCH TOPICS AND INFRASTRUCTURE

Key research structures involved at country level

In Poland, the majority of the research projects in the field of drugs and drug addiction is conducted by universities and research institutes. The most active centre in the field is the Institute of Psychiatry and Neurology (IPiN), a scientific centre specialised in health policy issues including substance abuse as well as in developing new treatment and rehabilitation methods for mental and neurological disorders. In addition, the National Institute of Hygiene carries out research in the field of drug-related infectious diseases. Drug related research projects are also carried out by the Polish National Focal Point – which has a key role in conducting drug-related research - and its parent institution the National Bureau for Drug Prevention.

At the Warsaw University there are two institutes that carry out research on drugs: the Institute of Applied Sciences and the Institute of Social Prophylaxis and Rehabilitation. Criminological research including drugs is conducted at the Jagiellonia University in Krakow. Other institutions that conduct research on drugs are for example research agencies such as the Social Research Agency (PBS DGA) and the Public Opinion Research Centre (CBOS).

Appendix 3.1**Country Report: Poland****Key research areas**

As result of the deskwork a total of 8 research projects were identified that meet the inclusion criteria of the study. These projects refer to two research topics; the major one is “Epidemiology” followed by “Intervention”.

Research area	Sub-topic	Projects	Substances
3. Epidemiology	3.1 Population based	5	Multiple illegal substances (1), Combined legal and illegal substances (4)
	3.2 Clinical target groups	2	Substance not specified (2)
4. Intervention	4.3 Treatment	1	Substance not specified (1)

According to the national key informants, there is a general trend observable from an ideological towards an evidence-based approach in reacting to the drug phenomenon. The research topics in the period 2001-2006 were mainly epidemiology, basic research on drug mechanisms and drug effects; aetiological research centred on youth as well as risk and protective (resilience) factors. Key issues were also research on drug supply and criminology.

Research publications/visibility

A total of 33 publications could be identified for the years 2001/2002 as well as 42 publications for the years 2005/2006. Most papers can be categorised as “Clinical and research assessments” that address neurobiological or pharmacological topics. Moreover, a relevant number of publications is concerned with basic science issues. The other categories do not yield much publications and citations, except for the section “Reviews”.

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Country Report: Poland

Research area	Year of publication							
	2001		2002		2005		2006	
	P*	C**	P	C	P	C	P	C
A Basic Brain Science	4	96	3	23	6	48	14	97
B Epidemiology and surveys	1	1			1	11	2	5
C Clinical and research assessments	10	43	6	27	12	41	2	2
D Prevention								
E Demand and harm reduction	1	3						
F Criminological and drug supply								
G Policy and Legal frameworks								
H Reviews	5	56	3	3	4	29	1	1
Total	21	199	12	53	23	129	19	105

* No of publications

** No of citations

FUNDING STRUCTURE

Funding agencies and research budgets

The National Bureau for Drug Prevention, which is an agency of the Ministry of Health and the Ministry of Science and Higher Education, constitutes currently the main body commissioning and financing the implementation of research in the field of drugs and drug addiction. The National Bureau has its own – small – budget, allocated by the Ministry of Health, in order to provide resources to institutions and other research bodies to conduct the commissioned tasks. The National Bureau has a grant agreement with the EMCDDA which includes co-funding of a number of research projects. In addition, some funds are generated from other sources, such as the WHO or NIDA.

Another source of financing research projects is the Ministry of Science and Higher Education, which provides grants for numerous research projects. Generally, in Poland there are only a few sources financing research on the issue of drug use and a relatively low number of institutions or organisations receives grants for this type of research. However, there has been some improvement in this field in the last few years. A minor part of funds is provided by local communities or regional authorities.

Five out of the eight research projects identified by the study's desk work are financed by national public agencies. Single project budgets vary between 30,000 € for an epidemiological survey and 150,000 € for an intervention study.

Specific research budget information is available for two institutes: the National Bureau for Drug Prevention which has a research budget on its own and the IPIŃ which is mainly funded by the Ministry of Science and Higher Education (please see table below).

Appendix 3.1**Country Report: Poland**

Year	National Bureau	IPiN
2000	122,000 PLN (~ 34,200 €)	448,000 PLN (~ 125,600 €)
2001	52,000 PLN (~ 14,600 €)	
2002	398,000 PLN (~ 111,600 €)	
2003	248,000 PLN (~ 69,500 €)	482,000 PLN (~ 135,100 €)
2004	432,000 PLN (~ 121,100 €)	200,000 PLN (~ 56,100 €)
2005	369,000 PLN (~ 103,400 €)	
2006	265.000 PLN (~ 74.300 €)	210.000 PLN (~ 58.900 €)

Coordination of research funding

In the framework of the Polish legal and administrative system no central coordination of research on drugs exists. Thus, commissioning, financing and conducting scientific activity is done by specific institutions within the scope of government administration, institutes and research centres, public opinion research agencies and associations. A central and common register for the administration of the available research projects in the field of drugs and drug addiction does not exist. Nonetheless, the National Bureau for Drug Prevention coordinates and monitors the implementation of the “National Programme for Counteracting Drug Addiction 2006-2010” adopted by the Council of Ministers (the third programme after the 1999-2001 and 2002-2005 programmes) specifically in the area of research. This National Programme defines – among others – the course of scientific research, i.e. the responsible bodies and the time period during which the activities should be implemented. But it cannot be defined as a research programme, because there are no systematic strategic initiatives like e.g. a dedicated national research focus for a certain period of time. The above mentioned research institutions have an input on the programme’s priorities, they apply for research grants by investigator-driven proposals, but also react on specific tenders set up by the National Bureau for Drug Prevention.

Recently, attempts have been made to establish the Polish Society for Research on Addictions as a result of initiatives undertaken independently of public administration but then supported by major state agencies. This association whose founding meeting was attended by multi-disciplinary groups of researchers aims to promote, initiate, support and conduct interdisciplinary scientific research on addiction-related problems and to support and promote national and international cooperation in this field.

Priorities

The National Programme for Counteracting Drug Addiction 2006-2010 focuses on a) prevention, b) treatment and rehabilitation, c) supply reduction, d) international cooperation and e) research and monitoring, which clearly shows that the nature of the programme is to tackle the drug problem by specific policies of (primary and secondary) prevention, treatment and rehabilitation, supply reduction and international cooperation. The research topics range from monitoring via epidemiological surveys,

Appendix 3.1

Country Report: Poland

to qualitative studies on drug users, cohort, prevalence and cost studies. Research priorities correspond to the programmes objectives in order to monitor and to evaluate their accomplishment.

PORTUGAL

Summary

There is strong commitment to developing prevention and treatment strategies in Portugal and the research activity has been linked to developing an effectiveness based intervention strategy for both prevention and treatment. Despite moderate resources Portugal has established through some of its clinicians and researchers a place on the research and development map of European drugs research and policy.

History of strategic development and vision behind the development of research capacity and funding structure in the field of (drug) addiction

An operational health program (3rd Communitarian Framework of Support 2000-2006, Health XXI) was enacted to reorganise and modernise the Portuguese health system and respond to existing needs. In 2005 the Office of the High Commissioner for Health (ACS) was established to coordinate and articulate public policies regarding the execution of the National Health Plan for 2004-2010 and articulation of financial programs; specifically programs of national scope or in fields of top priority. The National School of Public Health has an advisory role in health related research priorities definition. The Portuguese National Drugs Strategy was established in 1999.

The Institute on Drugs and Drug Addiction (Ministry of Health) is the national governmental structure responsible for the coordination of policy in the field of drugs. The Institute ensures the planning, conception, management, monitoring and evaluation of the different steps of prevention, treatment and rehabilitation in the field of drugs, aiming at improving the coordination and implementation of the established policies and strategies. The main areas of intervention of the Institute are prevention, treatment, harm reduction, rehabilitation, monitoring, scientific research and documentation, drug addiction dissuasion commissions.

The Chairman of the Management Board of the Institute is also the National Coordinator who reports directly to the Minister of Health and is responsible for the implementation of the National Strategy on Drugs. The National Coordinator also promotes the cooperation amongst local, regional and national administration bodies in a common effort to work against drug addiction. He also ensures, at governmental level, the external representation of Portugal in the field of drugs.

Future strategic approaches aimed at building research capacity and funding infrastructure

In 2001 a specific funding programme for drug-related research was established by the Ministry of Science and Technology. In 2004, an evaluation of the National Strategy found drugs related research had increased by more than 200%. This advance was achieved in part the establishment of drug related research networks. These developmental activities are continued in the 2005-2012 National Strategic Plan for the Fight against Drugs through the following activities:

- increasing the interaction between knowledge, decision and intervention, namely by promoting combined research and action projects;
- negotiating, with the relevant bodies, a research agenda together with a consistent and stable matching funding plan for the period of implementation of this National Plan, with well-defined criteria and priorities for project selection.

RESEARCH TOPICS AND INFRASTRUCTURE

Key research structures involved at national level

The Instituto Portugues da Droga e da Toxicodependencia (IDT) and the Ministry of Science and Technology are the key supervisory bodies for drugs research in Portugal. Other ministries with a more active role in drug-related research are the Ministry of Health, the Ministry of Justice and the Ministry of National Defence. Nearly all drug-related research (excluding basic research) is conducted by the IDT or by IDT funding of at a number of research centres including the following:

- The School of Psychology and Educational Sciences (FPCE) at the Porto University;
- The CEOS at the School of Social and Human Sciences (FCSH) of the New University of Lisbon;
- The School of Human Kinetics (FMH) at the Technical University of Lisbon;
- The CIES at the Institute of Business and Labour Sciences (ISCTE) in Lisbon;
- The School of Medicine at the University of Coimbra;
- The Abel Salazar Biomedical Sciences Institute, an autonomous research unit of the University of Porto.

Basic research is conducted almost exclusively through long-running, university-based projects. Funding for this research is sourced primarily from the Ministry of Science through the Science and Technology Foundation (Fundação para a Ciência e a Tecnologia" - FCT).

Appendix 3.1**Country Report: Portugal****Institute on Drugs and Drug Addiction**

The Institute is the national governmental structure responsible for the coordination policy in the field of drugs. The Institute assures the planning, conception, management, monitoring and evaluation of the different steps of prevention, treatment and rehabilitation in the field of drugs, in the perspective of a better fulfilment in the coordination and implementation of the policies and strategies established. The main areas of intervention of the Institute are: a) primary prevention, b) treatment, harm reduction, rehabilitation, c) scientific research and d) the Drug Addiction Dissuasion Commissions.

National Coordination Structure

Regarding the coordination mechanisms, since the adoption of the Portuguese Drug Strategy in 1999, two levels of coordination have been established:

- the political level with the appointment of a member of government with special responsibilities on drug policy (since March 2002 coordination is under the responsibility of the Health Minister);
- the technical level with a governmental agency (the Institute on Drugs and Drug Addiction) under the responsibility of the Health Minister.

The Chairman of the Management Board of the Institute also covers the role of the National Coordinator, that reports directly to the Minister of Health and guarantees the implementation of the National Strategy on Drugs. The National Coordinator also promotes the articulation of local, regional and national administration bodies to a common effort against drugs and ensures at governmental level, the external representation of Portugal in the field of drugs.

The *Interministerial Council for the Fight Against Drugs and Drug Addiction* is the upper body at Ministerial level to monitor and evaluate the implementation of the National Strategy. It approves the Action Plan and introduces changes when needed in the national policies. The Interministerial Council is integrated by 11 Ministers (Finances, National Defence, Foreign Affairs, Home Office, Justice, Deputy Prime Minister Education, Science and Universities, Cities, Territory and Environment, Labour and Social Security and Health) and it has a Technical Committee composed by the representatives of the Ministers.

The *National Council for Drugs and Drug Addiction* is an advisory body for the Prime Minister and is responsible for formulating recommendations in all aspects covered by the National Drugs Strategy. It is presided by the Prime Minister or by his delegate and composed of the National Coordinator, representatives of the treatment and prevention agencies, local authorities, judicial authorities, public and religious associations, universities, NGO's and the media.

Key research areas

A total of 7 research projects were identified that meet the inclusion criteria of the present study.

Appendix 3.1**Country Report: Portugal**

Research area	Sub-topic	Projects	Substances
3. Epidemiology	3.1 Population based	6	Substance not specified (3), Combined legal and illegal substances (3)
	3.3 Other specific target groups	1	Substance not specified (1)

Research publications/visibility

A total of 35 publications were identified as meeting the inclusion criteria in all four years. Across all years the research report publications identified were either on “basic brain science”, “clinical and research assessment” and “epidemiology or survey research” reports, or “demand or harm reduction” issues. No publications were identified on universal prevention projects. The “review” papers identified focused on related clinical disorder or treatment related issues.

Research area	Year of publication							
	2001		2002		2005		2006	
	P*	C**	P	C	P	C	P	C
A Basic Brain Science			6	87	2	20	9	59
B Epidemiology and surveys			1	6	1	6	1	2
C Clinical and research assessments	2	58	3	34	2	16	2	14
D Prevention								
E Demand and harm reduction							1	1
F Criminological and drug supply								
G Policy and Legal frameworks								
H Reviews	3	8	1	8	1	3		
Total	5	66	11	135	6	45	13	76

* No of publications

** No of citations

FUNDING STRUCTURE**Funding agencies and research budgets**

From 2000 to 2006, between the IDT and the FCT, almost 4 mill. Euro were invested in drug-related projects. The next table reports on the yearly expenditures and the next chapter refers the main recent studies and publications which were, for the most part, funded by these agencies.

Appendix 3.1**Country Report: Portugal**

Table: Amount in € provided for drug-related research by FCT under the protocol with IDT

Year	Amount
2000	2.097.445,00 €
2001	732.036,00 €
2002	335.674,00 €
2003	48.000,00 €
2004	37.617,00 €
2005	46.000,00 €
2006	624.223,00 €

(IDT2007e)

Coordination of research funding

The Instituto Portugues da Droga e da Toxicodependencia (IDT) and the Ministry of Science and Technology are the key supervisory bodies for drugs research in Portugal. Other ministries with a more active role in drug-related research are the Ministry of Health, the Ministry of Justice and the Ministry of National Defence. Nearly all drug-related research (excluding basic research) is conducted by the IDT or by IDT funding of at a number of research centres including the following:

- The School of Psychology and Educational Sciences (FPCE) at the Porto University;
- The CEOS at the School of Social and Human Sciences (FCSH) of the New University of Lisbon;
- The School of Human Kinetics (FMH) at the Technical University of Lisbon;
- The CIES at the Institute of Business and Labour Sciences (ISCTE) in Lisbon;
- The School of Medicine at the University of Coimbra;
- The Abel Salazar Biomedical Sciences Institute, an autonomous research unit of the University of Porto.

Basic research is conducted almost exclusively through long-running, University-based projects. Funding for this research is sourced primarily from the Ministry of Science through the Science and Technology Foundation (Fundação para a Ciência e a Tecnologia” - FCT).

Priorities

The key priorities are around prevention and evidenced based approaches to treatment and broader interventions. There is also support for the development of information on the scale and extent of the problem and for further social surveys and school surveys such as ESPAD.

ROMANIA

Summary

The development of interest in drug-related issues in general and consequently also in drug research initiated in Romania in the early 90s with the adoption of the National Anti-drug Strategy and the sequent establishment of institutions responsible for its application and evaluation. Within this frame the inception, performance and coordination of research in the field is centrally organised. Research is financed by both state budget and external sources. The focus of the research projects that have been conducted so far is on epidemiology.

History of strategic development and vision behind the development of research capacity and funding structure in the field of (drug) addiction

At the end of December 2002 the National Anti-drug Agency was set up - through a Governmental Decision - in the subordination of the Ministry of Administration and Interior. The Agency started with 40 employees working in four main directorates: prevention, evaluation and coordination, international relations and the Monitoring Centre of Drugs and Drugs Addiction. Currently (January 2009) the Agency has a staff of about 350 people – out of which around 250 are located in the Centres for Prevention, Evaluation and Counselling (local structures of the Agency).

In February 2003, the National Anti-drug Strategy was adopted through a Governmental Decision. This strategy contains three main chapters: drugs supply reduction, drugs demand reduction and international cooperation. A special chapter is dedicated to the National Focal Point (NFP), the Romanian Monitoring Centre for Drug and Drug Addiction. On June 26, 2003, the International Day for Fight against the illegal traffic and abuse of drugs, the National Anti-drug Agency was officially inaugurated. According to a respective Governmental Decision on the establishment of the National Anti-drug Agency, the institution examines how the National Anti-drug Strategy and its Action Plan are applied and evaluates the implementation stages of these two acts.

In order to fulfil the goals undertaken in the 2005-2012 National Anti-Drug Strategy (NAS), a series of superior, secondary and tertiary normative acts were adopted between 2004-2008, which contributed to the improvement of the legal context necessary for the regulation of the performed activities both in the field of demand reduction and drug supply reduction.

Starting in 2007, the Romanian NFP benefited from the grant agreement with EMCDDA; Romania being officially member of EU. As a result, the possibility to run and implement researches and studies increased greatly. Apart from the twinning projects (3 such projects with Spain between 2001-2007) and from the aforementioned grant agreement with the EMCDDA, the NFP has implemented activities

Appendix 3.1**Country Report: Romania**

in the country as part of the Global Fund to Fight AIDS, Tuberculosis, and Malaria, and of the UNODC project HIV/AIDS prevention and care among injecting drug users and in prison settings.

Future strategic approaches aimed at building research capacity and funding infrastructure

Researches and studies performed in 2007 (i.e., general population survey, prevalence of HIV and VHC among IDUs in Bucharest, estimating the problem drug use in Bucharest, assessing the quality of services offered by CPECA, ESPAD etc.) have offered besides the raw data, the possibility to run analyses and to compare trends. Even if there are still some areas for which no data could be collected, overall the data available in 2007 and the experience gained in implementing the indicators have provided the background so that more analyses and more complex correlations could be performed compared to previous years.

For the implementation of an efficient communication and coordination system in all institutions involved in the application of the National Anti-Drug agency, two distinct structures have been founded: the Consultative Council and the Scientific and Research Council. The former consists of representatives of the institutions with drug demand and supply related duties, and of representatives of the civil society. Its general duty is the analysis of the common problems related to the application of the National Anti-Drug Strategy in terms of drug demand and supply reduction policy. The operation Scientific and Research Council, which comprises professionals from scientific and academic field, the context of policies debate, territorial strategies and anti-drug projects and programmes has been ensured.

Special attention has been given to the strengthening of the cooperation at a local level. Thus, the representatives of the Ministry of Public Health, of the Ministry of Labour, Social Solidarity and Family and of the Ministry of Administration and Interior drafted a document referring to the concrete methods and procedures used at a local level by the institutions involved in the supply of drug use prevention services. Also, the Curricula for the training of specialists within the prevention, evaluation and anti-drug Counselling centres were drafted within a working group, in which specialists of the National Anti-Drug Agency and of the Ministry of Public Health participated.

RESEARCH TOPICS AND INFRASTRUCTURE**Key research structures involved at country level**

The main research institution in the field of drug-related research is the National Anti-drug Agency (NAA). It is carrying out own research projects as well as coordinates research in this field. It cooperates with other national institutions or NGOs. Another institution with an important role in drug research is the National School for Public Health and Sanitary Management. In addition different

Appendix 3.1**Country Report: Romania**

university departments (e.g. the Faculty of Pharmacy within the University of Medicine and Pharmacy Carol Davila in Bucharest) are also undertaking research in the field of drugs. Moreover NGOs such as RAA, Save the Children, IFEC, CCF and others are also relevant players in drug-related research.

Based on the desk work conducted in the frame of the study, most drug related research projects in Romania are carried out in public/governmental organisations and to a lesser extent in universities or private institutions/NGOs. These are for example the National Institute for Health Research-Development, the Romanian Harm Reduction Network, the Department of Psychology, Babes-Bolyai University, Cluj and organisations like Save the Children or the Romanian Angel Appeal.

Key research areas

A total of 5 research projects in one research area were identified for Romania that meet the inclusion criteria of the present study. In all cases the research topic was “Epidemiology”.

Research area	Sub-topic	Projects	Substances
3. Epidemiology	3.1 Population based	4	Combined legal and illegal substances (3), Multiple illegal substances (1)
	3.2 Clinical target groups	1	Opioids (1)

Research publications/visibility

Two scientific publications could be identified for Romania fulfilling the study’s criteria.

Research area	Year of publication							
	2001		2002		2005		2006	
	P*	C**	P	C	P	C	P	C
A Basic Brain Science								
B Epidemiology and surveys	1	14						
C Clinical and research assessments							1	3
D Prevention								
E Demand and harm reduction								
F Criminological and drug supply								
G Policy and Legal frameworks								
H Reviews								
Total	1	14					1	3

* No of publications

** No of citations

FUNDING STRUCTURE

Funding agencies and research budgets

Financial resources for drug-related research are ensured under both state budget and external sources. Major national funding agencies are the Ministry of Health and the Ministry of Education and Research. The latter finances research projects for governmental institutions and NGOs by the National Authority for Scientific Research/Excellence Research Programme. Research projects conducted by NGO's have mainly been funded by international organisations: UNAIDS, UNICEF, UNODC, Global Fund to Fight against HIV/AIDS, Tuberculosis and Malaria.

The Faculty of Pharmacy within the University of Medicine and Pharmacy Carol Davila in Bucharest and four other partners (NAA, Evaluation and Treatment Centre for Young Drug-addicted People Sf. Stelian, National Research-Development Institute Victor Babes, CMMSR) applied for and received a 150,000 RON grant (almost 42,250 €) for the project Monitoring the psychosomatic variations in drug-addicted patients under substitution therapy, 2005-2007.

Three out of the five research projects identified by our desk work were funded by European or international organisations. One project received grants from national public (or other) agencies. The single research budget is only available for one epidemiological project (23,000 €).

Coordination of research funding

The National Anti-drug Agency is the main institution involved in the inception, performance and coordination of the research in the field. Its role is nationally recognised and the Agency is invited as partner in research projects conducted by other institutions or NGOs, so that the results could be recognised and promoted and drug demand reduction policy, drafted and updated by the Agency, would be adjusted.

Priorities

- The NFP and the National Anti-drug Agency will assume its leading role in promoting and implementing drug related researches at national level.
- The activities run under the grant agreement with EMCDDA (amounting to a total value of app. 100,000 € per year).
- The development of horizontal cooperation with other NFPs from EU member states.
- The provision of support to NFPs or other institutions at international level.
- To implement the activities foreseen in the context of Global Fund/World Bank project, round II.

Appendix 3.1

Country Report: Romania

- The implementation of all 5 key indicators of the EMCDDA until the end of 2010.
- The exploration and application for external funds allocated specifically for research activities (e.g., EU funds and UN funds).

SLOVAKIA

Summary

Drug problem - especially with regard to illicit drugs - is relatively new in Slovakia. The development of research capacities has been quite slow mainly due to the financial and social situation after 1989. Currently, drug-related research is mainly conducted by national research institutes (public agencies, faculty hospitals, departments of universities), which are attached to relevant ministries. An outstanding role in the field of drug related research has the Slovak Academy of Science (SAS), which not only carries out research but is also involved in decision making regarding research funding. The Ministry of Education is the major national funding agency, which allocates funds in the form of grants, either for specific research projects or for the institutions implementing research. Besides, funding for science and research purposes can be provided by a science grants organisation (VEGA), the Anti-Drug Fund, and in 2007 by the Grant Scheme of the project „Support to the Implementation of the 2004–2008 NPFD“. Foreign and domestic donors and sponsors contribute also. Research priorities, such as, use of research results and best practices in the formulation of interventions, collection, analysis and dissemination of reliable and objective information, evaluation of drug policy, drug situation according to EU key epidemiological indicators, are formally defined in the respective policy documents.

History of strategic development and vision behind the development of research capacity and funding structure in the field of (drug) addiction

Drug problem is relatively new in Slovakia, especially with regard to illicit drugs. Shortly after the changes in 1989, a serious epidemic of heroin use has been observed. The situation at that time did not allow any development in research strategies or in finding new approaches. It was necessary to promptly adopt international experience and best practices, to solve the problem raising. Therefore it is quite difficult to define when exactly the research capacity building started. Moreover, some aspects needed to be investigated in national context, were researched ad-hoc, being also encouraged by a national co-ordinating body. A significant measure to promote research was the establishment of the Anti-Drug Foundation in 1996 (Act No. 381/1996 Dig), which should serve as an ongoing funding mechanism. Since 1 January 1998, the Institute on Drug Dependencies acts as a specialised research institution in Health Department.

In addition, important research activities came within joint projects with foreign partners (e.g. the Phare project on Drug Information System, the national participation in the ESPAD project, etc.).

Research activities were – and still are – distributed across different areas and capacities, as it is described below. The support of research is declared in the national Anti-Drug Strategy; nonetheless, no common and united research strategy has been elaborated or proposed to date.

Future strategic approaches aimed at building research capacity and funding infrastructure

During the period of great social and economic changes in Slovakia (after 1989), along with a rather massive brain drain, it was difficult to find some financial resources and scientific capacities even during the drug epidemic culmination. Still currently with the subsidence of that wave it is even harder. The main approach visible is to maintain the existing research capacities, and to co-ordinate their activities nationwide, mainly in order to obtain the background for policy decisions.

RESEARCH TOPICS AND INFRASTRUCTURE

Key research structures involved at country level

Most drug-related research in Slovakia is performed by national research institutes, which are attached to three key ministries:

(1) The institutes under the Ministry of Health undertake mainly research into basic and applied biomedical research and development in the field of public health related to the drug problem. These institutes are: the Institute of Drug Dependencies at the Centre for the Treatment of Drug Dependencies in Bratislava, the Public Health Authority, the Slovak Medical University (SMU) and Faculty hospitals.

(2) The institutions under the Ministry of Education are: the Research Institute for Child Psychology and Pathopsychology and the Institute for Information and Prognoses of Education, as well as university departments, such as the Faculty of Pharmacy at Comenius University, the Faculty of Humanities, the Pedagogical Faculty and the Faculty of National Sciences at Matej Bel University in Banská Bystrica, the Faculty of Natural Sciences at Žilina University, the Pedagogical Faculty and the Faculty of Arts (Institute of Education Studies and Social Work) at Prešov University, the Faculty of Medicine at P. J. Safarik University in Košice, the Faculty of Science (Institute of Social Sciences) at the P. J. Šafárik University in Košice (till 2007) and the Faculty of Arts at P. J. Safarik University in Košice (since January 2007), the KISH Centre of Excellence at P. J. Safarik University in Košice (since July 2006) and the University of SS. Cyril and Methodius in Trnava.

(3) The Institute for Labour and Family Research carries out drug-related research under the Ministry of Labour, Social Affairs and Family, but there have been no research activities in this field since 2000.

The key national scientific research institution is the Slovak Academy of Sciences (SAS), which has an autonomous status and carries out research in fields of the natural, technical and social sciences. The results of scientific, research and development activity in the country are currently presented by the SAS, amongst other means, in 54 scientific and specialist journals (EMCDDA Slovakian National report on Drugs, 2007). Many institutes in the field of the SAS's medical sciences are involved in

Appendix 3.1**Country Report: Slovakia**

research into psychoactive substances. The following institutions could be mentioned by way of illustration: the Institute for Heart Research, the Institute of Experimental Pharmacology, the Institute of Molecular Physiology and Genetics, the Institute of Neurobiology, the Institute of Neurophysiology, the Institute of Neuroimmunology, the Institute of Normal and Pathological Physiology, the Institute of Virology, the Institute of Social Sciences, the Department of Social and Biological Communication, the Institute for Sociology and Institute of Experimental Psychology. The SAS is the main partner of the Ministry of Education.

In addition, some NGOs, such as the Open Society Foundation or Filia also play a significant role in drug-related education and research.

According to the results of the desk work, most drug related research projects in Slovakia are realised at universities and public/governmental organisations. These are, for example, the Department of Chemical Theory of Drugs at Comenius University in Bratislava, the Institute of Social Sciences in the Faculty of Natural Sciences of PJ Šafárik University in Košice and the Institute of Drug Dependencies at the Centre for the Treatment of Drug Dependencies in Bratislava.

Key research areas

A total of 6 research projects were identified to meet the inclusion criteria of the study. These projects are mainly carried out within two research areas: “Drug mechanisms, effects and methods of detection” and “Epidemiology”. A third research topic is “Aetiology and course”.

Research area	Sub-topic	Projects	Substances
1. Drug mechanisms, effects and methods of detection	1.5 Global	2	Multiple illegal substances (1), Substance not specified (1)
2. Aetiology and course	2.1 Aetiology	1	Substance not specified (1)
3. Epidemiology	3.1 Population based	2	Combined legal and illegal substances (2)
4. Intervention	4.3 Treatment	1	Combined legal and illegal substances (1)

Research publications/visibility

Based on the study's inclusion criteria, four scientific publications could be identified for Slovakia in the years 2001/2002.

Appendix 3.1

Country Report: Slovakia

Research area	Year of publication							
	2001		2002		2005		2006	
	P*	C**	P	C	P	C	P	C
A Basic Brain Science								
B Epidemiology and surveys	1	5	1	15				
C Clinical and research assessments								
D Prevention	1	2						
E Demand and harm reduction	1	5						
F Criminological and drug supply								
G Policy and Legal frameworks								
H Reviews								
Total	3	12	1	15				

* No of publications

** No of citations

FUNDING STRUCTURE

Funding agencies and research budgets

The major national funding agency in Slovakia is the Ministry of Education. In addition, operates a science grants organisation, VEGA, which is run jointly by the Ministry of Education and the SAS. Specific activities relating to drugs (mainly basic surveys) may also use funding provided from the Anti-Drug Fund, which is actually responsible for the support of practice (also best practices) and not the science exclusively, and in 2007 also the Grant Scheme of the project „Support to the Implementation of the 2004–2008 National Programme for the Fight against Drugs (NPFĐ)“. Foreign and domestic donors and sponsors also contribute to the funding of research projects.

Information regarding the funding derives also from a result survey among research institutions in the drug field, carried out in 2007¹. Information on the total budget was provided for 20 research projects (out of a total of 58 projects who had participated in the survey) amounting to 1,287,734 € (SKK 47,965,515). A partial or approximate budget can be determined in the case of 7 research projects, amounting to 362,518 €. Individual research projects were usually financed from a number of sources of funding (own resources and grants). Budgets were/are composed for the full duration of the project (EMCDDA Slovakian National report on Drugs, 2007).

Moreover, based on the desk work of the present study, three out of the six research projects identified were funded by national public (and in one case private) agencies. One project received funding from the European Commission, namely DG SANCO. Single research budgets are available for four projects and vary between 51,000 € and a maximum of 850,000 €.

¹ NMCD and General Secretariat (2007): Informácia o výskumných projektoch v SR z oblasti drogových závislostí 2000 – 2007 (Information on drug-related research projects in Slovakia in the 2000–2007 period), National Monitoring Centre for Drugs and the General Secretariat of the Board of Ministers for Drug Addiction and Drug Control, unpublished.

Coordination of research funding

Funding for science and research in Slovakia is provided from the state budget through the relevant budget chapter of the Ministry of Education. Funds are provided in the form of grants which may be for a specific purpose or may be institutional. A budgetary organisation of the Ministry of Education – the Slovak Research and Development Agency (APVV) – has become the dominant instrument for the support of research and development in Slovakia. Another Ministry of Education agency for EU structural funds was established in 2007 with the primary role of ensuring the process for the implementation of assistance from EU structural funds in the 2007–2013 programming period. The agency will carry out activities within the scope of tasks delegated to the Ministry of Education as the managing authority under the operational programmes Education and Research and Development.

Priorities

The applied policy documents, i.e., the 2004-2008 National Programme for the Fight against Drugs and the respective action plans, define the following priorities in terms of drug related research: use of research results and best practices in the formulation of intervention, collection, analysis and dissemination of reliable and objective information; evaluation of drug policy, drug situation according to EU key epidemiological indicators.

In the field of medical scientific activities the setting of research priorities is expected from the Institute for Drug Dependencies at the Centre for Treatment of Drug Dependencies.

Moreover, the national Focal Point has a priority on financing scientific activities related to the EMCDDA's and its common area of key interests, namely key indicators of Problem Drug Use (PDU), Treatment Demand Indicator (TDI) and Drug-related Infectious Diseases (DRID).

SLOVENIA

Summary

Drug-related research in Slovenia, especially regarding illicit drugs, is relatively new. In the 90's, with the increase of the problem related to heroin use and followed by the implementation of substitution maintenance treatment for heroin addicts (nationwide), routine epidemiological illicit drug research was developed. The majority of drug related research is state funded; the European Commission is also considered as a significant funding source.

History of strategic development and vision behind the development of research capacity and funding structure in the field of (drug) addiction

In Slovenia, researchers are linked together in qualified and well-rounded research teams and institutes. In this respect, research teams and institutes are not merely collections of individuals, but are thought to be teams active at the current research work.

The Scientific Research Centre of the Slovenian Academy of Sciences and Arts (SRC SASA) is considered as one of the leading research and educational centres in Slovenia; it ranks as one of the cutting-edge academic institutions in Central and South-Eastern Europe. As of 2004 the Centre comprises an independent network of researchers and technicians who study cultural, social and natural phenomena, issues and practices, within the framework of research groups and 17 institutes.

In addition, the Institute of Public Health of the Republic of Slovenia (IPHRS) was first established in Ljubljana in 1923. Since 1992, together with nine regional institutes has been delivering services which represent the mainstay of preventive health care in Slovenia. The institute's major fields of activity include: social medicine, hygiene, environmental health, epidemiology of infectious diseases, public health laboratory services, health information systems, mental health and health promotion. Moreover, health statistics (primary, secondary, tertiary health care, health care manpower, facilities etc.) are almost fully centralised, and the IPHRS, together with the regional institutes are responsible for collecting, analysing, and processing medical data from all HC levels, except for health care finance data which are handled by a health insurance office.

The first drug research activities were preliminary funded by in-house budgets of the IPHRS.

Since the 90's with the increase in illicit drug-related problems, the Ministry of Health funded drug research activities in the field of prevention, performed mainly by professionals, working in the network of prevention and illicit drug treatment centres.

Future strategic approaches aimed at building research capacity and funding infrastructure

The Slovenian Current Research Information System - SICRIS information system is being developed and maintained by the Institute of Information Science in Maribor and the Slovenian Research Agency. The following entities are currently presented in SICRIS: 765 research organisations, 1,238 research groups, 12,827 researchers, 4,921 research projects, 600 research programs.

In general, it is planned that research will focus on the evaluation of the national strategy on drugs, on legal substances and non-substance related behaviour addiction.

RESEARCH TOPICS AND INFRASTRUCTURE

Key research structures involved at country level

One of the most important institutions involved in drug-related research in Slovenia is IPHRS. As mentioned in the section "History of strategic development and vision behind the development of research capacity and funding structure in the field of (drug) addiction", it co-operates with different regional institutes of Public Health nationwide and other institutions. Research sites exist also at universities, public agencies and private institutes.

Key research areas

Based on the study's inclusion criteria, one research project could be identified for Slovenia in the field of epidemiology.

Research area	Sub-topic	Projects	Substances
3. Epidemiology	3.1 Population based	3	Combined legal and illegal substances (3)

Research publications/visibility

Five scientific papers could be identified for the years 2001/2002 as well as two papers for the years 2005/2006 fulfilling the study's inclusion criteria. These papers address clinical and research assessments mainly concerned with pharmacological aspects. In 2002, three reviews have been published on drug related topics.

Appendix 3.1**Country Report: Slovenia**

Research area	Year of publication							
	2001		2002		2005		2006	
	P*	C**	P	C	P	C	P	C
A Basic Brain Science								
B Epidemiology and surveys			1	4				
C Clinical and research assessments	1	16			1	2	1	1
D Prevention								
E Demand and harm reduction								
F Criminological and drug supply								
G Policy and Legal frameworks								
H Reviews			3	6				
Total	1	16	4	10	1	2	1	1

* No of publications

** No of citations

FUNDING STRUCTURE

Funding agencies and research budgets

Funding for drug-related research is mainly provided by the state budget and namely by relevant ministries, i.e. the Ministry of Higher Education, Science and Technology, the Ministry of Health and the Ministry of Labour, Family and Social Affairs. Moreover, there are research projects which are supported by the local governments or by non-governmental organisations and foundations. Moreover, the European Commission plays an important role.

Coordination of research funding

There is no central coordinating institution for the funding of the drug-related research in Slovenia. Depending on the content of studies, there are the aforementioned ministries in charge (see "Funding agencies and research budgets"). Specifically, the Ministry of Higher Education, Science and Technology performs tasks in the field of higher education, research, technology, metrology and promotion of the information society in the areas, which are not covered by the other ministries. The ministry also co-ordinates work in the field of the information society.

Priorities

Recognised priorities for future research topics are related to evaluation, interventions, epidemiology, legal substances and behaviour- related addictions.

SPAIN

Summary

The development of the research capacity in Spain has started in the early '80s with an interest mainly on the opioid system; recent trends show a shift towards stimulants, cannabis and poly drug use, as well as comorbidity and psychiatric disorders. Universities constitute major players in the field of illicit drug research. In addition, the Spanish Network of Addiction Research supports the professionals in the field with its funding and coordinating tasks. Ministries and state structures are the major sources of research funding; whereas several Spanish research groups acquire also EU funding sources. As for the coordination of the research funding, models of prioritisation are defined by the programme of the respective funding source.

History of strategic development and vision behind the development of research capacity and funding structure in the field of (drug) addiction

Historical development of research capacity

The research capacity in Spain developed around 1982 with research on the opioid system. The HIV-epidemic was another cornerstone for the development of research capacities in Spain, further on the creation of the National Plan on Drugs. Especially the interest of neuroscientists in the opioid system was a major drive to create research capacities in the illicit drugs field. Later on the stimulation came from interests in cannabis and other substance research. In 1985 addiction was included as a funding topic in the generic scientific funds of Spain.

The other line of development of research capacities was the support by the Ministry for Health and Consumer Affairs. It stressed the concept of addiction problems as a public health problem which influences the whole society of Spain and therefore needs a broad approach of scientific based activities in all areas of prevention and intervention.

Recent trends are a shift towards stimulants, cannabis and poly drug use, as well as comorbidity and psychiatric disorders.

Historical development of funding infrastructure

A major shift and development of funding addiction research infrastructure has been the year 1985:

Ministry of Innovation and Science

Addiction became a priority line in 1985 within the generic funding structure of the ministry (basic science). In 2007 these funds have been increased by 25% in the biomedical science, including addiction. There are no specific action programmes for addiction; it is a generic funding programme for science in different fields. Addiction research proposals can be submitted in the field of biomedical sciences.

Appendix 3.1**Country Report: Spain***Ministry of Health*

In 1985 the National Plan of Drugs was created as a type of priority line within their general funding programme. In 2000 a special funding programme for the addiction field was developed (Spanish Network in the Addiction Field) with a high increase of money in 2003. Since 2007 research groups with high excellence get more money for a longer time (five year grants) but in a very competitive application procedure.

Future strategic approaches aimed at building research capacity and funding infrastructure

The overall approach has helped to establish a unique drugs related research network that has mapped out the overall level of research underway in Spain and indicates that there is a large capacity for basic science drug related research within Spain.

Trends in research are towards more stimulants, cannabis and poly drug use and more research on psychiatric topics as well as comorbidity.

RESEARCH TOPICS AND INFRASTRUCTURE**Key research structures involved at national level**

The major research institutes in the field of illicit drugs are as follows:

- Universities, university hospitals and institutes of the Spanish National Research Council (Consejo Superior de Investigaciones Científicas - CSIC). They account for about 80% of the Spanish research groups in the addiction field.
- The Spanish Network of Addiction Research covers about 20% of the research groups. This network spends about 10% of its budget for coordination of research groups and 90% for funds to finance staff contracts. Members who receive funds are selected by (a) excellence of their publications and (b) the capacity to raise funds. The background for the specific funding structure is that all researchers receiving these funds have other work responsibilities like teaching or clinical work, and they are only “part-time drug researchers”.

There are four research societies with social, clinical or basic addiction research interests and several generic societies.

Key research areas

In Spain key research areas in the last years have been:

- drug mechanisms (basic research in neuroscience, molecular basis of behaviour);

Appendix 3.1**Country Report: Spain**

- epidemiology;
- intervention: few studies on cocaine and cannabis as well as few studies on service system research (e.g. integration of mental health and addiction services systems).

A total of 9 research projects were identified that meet the inclusion criteria of the study. Two research projects fall into the research topic “Epidemiology”, whereas one project has been identified for each one of the following categories “Drug mechanisms, effects and methods of detection”, “Environmental prevention”, “Person-oriented prevention”, “Treatment”, “Drug supply - trafficking”, “Interdiction - trafficking” and “Drug supply related forensics”.

Research area	Sub-topic	Projects	Substances
1. Drug mechanisms, effects and methods of detection	1.1 Mechanisms of action	1	Opioids (1)
3. Epidemiology	3.1 Population based	2	Combined legal and illegal substances (2)
4. Intervention	4.1 Environmental prevention	1	Substance not specified (1)
	4.2 Person-oriented prevention	1	Substance not specified (1)
	4.3 Treatment	1	Opioids (1)
7. Drug supply	7.4 Trafficking	1	Cocaine (1)
8. Interdiction	8.4 Trafficking	1	Cocaine (1)
	8.5 Drug supply related forensics	1	Substance not specified (1)

Research publications/visibility

A total of 364 publications were identified as meeting the inclusion criteria in all four years. For all years “clinical and research assessment” and “epidemiology or survey research reports” were the type of publication most frequently identified. However, more notable is the lack of any publication reports on universal prevention projects and the very limited number of “policy and legal” or “criminological and drug supply” publications and associated citations. The “Review” papers identified across the four years predominately focused on related clinical disorders or treatment related issues.

Appendix 3.1

Country Report: Spain

Research area	Year of publication							
	2001		2002		2005		2006	
	P*	C**	P	C	P	C	P	C
A Basic Brain Science	14	289	16	461	14	134	24	108
B Epidemiology and surveys	24	376	17	220	21	152	25	104
C Clinical and research assessments	24	302	27	271	23	196	30	140
D Prevention								
E Demand and harm reduction	15	104	9	45	6	14	9	37
F Criminological and drug supply	1	2	1	2				
G Policy and Legal frameworks			1	1				
H Reviews	23	32	18	102	11	75	11	115
Total	101	1105	89	1102	75	571	99	504

* No of publications

** No of citations

FUNDING STRUCTURE

Funding agencies and research budgets

There are four major sources of research funding in Spain for the total research budget of about:

*Ministry of Sciences and Innovation*¹

The Ministry has an annual budget of about 4 mill. € and 1 mill. for basic biology as a general, biomedical oriented science fund, with no specific sub-budget for drug research. Predominantly basic research is funded, as individual projects or research networks. About 50-60% of the addiction research budget is coming from this source.

*Instituto de Salud Carlos III*²

This Institute covers two types of funding: a) biomedical, clinical oriented basic research (0.5-1 mill. per year) and b) the Spanish Network of Addiction disorders (Red de Trastornos Adictivos, RTA³) with about 1.5 mill. per year. Researchers can apply to RTA for funding. Applications are externally reviewed and are oriented towards basic science, with a small part of clinical research. Both types of funding of the Instituto de Salud Carlos III cover about 20% of the national addiction research budget or 2.0-2.5 mill. per year.

¹ www.micinn.es

² www.isciii.es

³ www.redrta.es

Appendix 3.1**Country Report: Spain***Ministry for Health and Consumer Affairs*

The Ministry is responsible for the National Plan on Drugs (Plan Nacional sobre Drogas⁴). This governmental organisation coordinates and structures the national action plan between governmental ministries, agencies and the collaboration with the Comunidades Autónomas. Within this plan the National Focal Point for the EMCDDA is financed. In addition yearly about 15-20 projects are funded with altogether 1.5 mill. € in the field of basic, clinical, epidemiological and prevention research. This sector covers about 10% of the national annual addiction research budget.

Funds from communities and regions

There is no central overview on the amount and type of funding and the type of research projects; it is estimated to be about 10-15% of the total research budget in the addiction field.

Coordination of research funding

Models of prioritisation are different for the different available programmes. E.g. the priorities of the funding programme of Ministry of Innovation and Science are set by the Ministry in cooperation with scientific advisors, and this process seems not to be transparent. The National Plan on Drugs is much more structured and also prioritised by political decisions, with the advice from individual researchers. Research societies doesn't play a major role in this process.

The structure of funding hasn't changed much over the years. The programme of the Ministry of Science is strongly investigated driven, whereas the National Plan on Drugs has more defined programme-based funding.

EU funding sources

It's estimated that about 25% of the research groups in Spain get money from EU budgets. Among these groups there are only highly qualified groups. In these cases the EU budgets amount to 20-60% on the total budget of the individual research groups.

Other European research funding sources

There are few other sources of funding. It is very few from the industry, nothing relevant from the WHO and the UNODC, but two groups out of about 30 in Spain get NIDA funds, and very few get money from other US-research funding sources.

Priorities

Change of priorities can be found in the National plan on Drugs, which is predominantly programme driven. There is a shift to cocaine and cannabis, both in basic research and intervention research, and recently a shift to psychiatric comorbidity.

⁴ www.pnsd.msc.es

SWEDEN

Summary

Sweden has a significant capacity in drugs related research and has a good infrastructure of research skill across a range of disciplines from basic science to social science. Drug research is an important topic at national strategic level and has over the recent past managed to attract new funding and new activity with relatively young and active researchers.

History of strategic development and vision behind the development of research capacity and funding structure

Sweden has a long tradition of research in the addictions field and hosts some institutions with a recognised research capacity. The overall strategic approach to all research is co-ordinated through the Swedish Research Council. It is a government ministry under the Ministry of Education, Research and Culture. The Swedish Research Council has three areas of responsibility, research funding, research policy and research communication. The Research Council has an advisory role in setting research priorities. The Swedish National Institute of Public Health plays a role in aspects of monitoring alcohol, drugs and tobacco.

Future strategic approaches aimed at building research capacity and funding infrastructure

There is a substantial investment in the development of research infrastructure with a substantial number of training and postgraduate posts and a significant national commitment to ongoing infrastructural capacity development.

RESEARCH TOPICS AND INFRASTRUCTURE

Key research structures involved at national level

The research is carried out predominantly through the Universities and Higher Education Institutions and there a selected small number of institutions that seem to engage in research in the drugs field. There are two main streams of activity the basic biomedical and the social science stream of research. It was viewed that there had been some increase in biomedical research and a significant reduction in research in the area of social science and drug related social problems.

Appendix 3.1

Country Report: Sweden

Key research areas

A total of 7 research projects were identified that meet the inclusion criteria of our study.

Research area	Sub-topic	Projects	Substances
1. Drug mechanisms, effects and methods of detection	1.1 Mechanisms of action	1	Substance not specified (1)
3. Epidemiology	3.1 Population based	3	Combined legal and illegal substances (3)
4. Intervention	4.2 Person-oriented prevention	1	Substance not specified (1)
8. Interdiction	8.4 Trafficking	1	Other stimulants including caffeine (1)
	8.11 Information sharing and cooperation	1	Substance not specified (1)

Research publications/visibility

A total of 86 publications were identified as meeting the inclusion criteria in all four years. For all years “clinical and research assessment” and “epidemiology or survey research reports” were the type of publication most frequently identified. However, more notable is lack of any publication reports on universal prevention initiatives and the very limited number of “policy and legal” or “criminological and drug supply” publications and associated citations. The “review” papers identified across the four years were not focused on any particular areas but included publications from a range of the classification categories.

Research area	Year of publication							
	2001		2002		2005		2006	
	P*	C**	P	C	P	C	P	C
A Basic Brain Science	1	13	1	17	1	3	9	70
B Epidemiology and surveys	4	48	3	30	6	53	10	34
C Clinical and research assessments	7	73	3	19	7	56	10	37
D Prevention								
E Demand and harm reduction	2	24			3	4	1	3
F Criminological and drug supply							1	2
G Policy and Legal frameworks			1	5	1	7	1	1
H Reviews	5	96	4	21	3	55	2	18
Total	19	254	12	92	21	178	34	165

* No of publications

** No of citations

FUNDING STRUCTURE

Funding agencies and research budgets

Sweden has proportionately large levels of investment in all aspects of research and devoted 3.8% of GDP to research in the recent past. Public sector funding for research is mainly through grants paid directly to Higher Education Institutions and through support for research councils and sectoral research agencies. The research councils mainly support basic research. There are over 30 sectoral agencies and there is also some research through local municipalities and local councils mainly in health and social care including drug related topics. There are 14 Universities and 25 other Higher Education Institutions involved in research. There is a large body of students and a large resource to support funding for postgraduate study and research. There are also a number of substantial private foundations that provide significant support to research.

The Swedish Council for Working Life and Social Research is a government agency under the Ministry of Health and Social Affairs and carries a budget of 300 mill. Swedish Kronors and has responsibility a broad area which includes alcohol and drug problems. FAS is also engaged with the European Science Foundation on collaborative research projects. The Swedish Research Council support basic Neuroscience, Neurobehavioural and Molecular genetic work in the drug field and has an overall budget of nearly 300 mill. Swedish Kroner and is the main body supporting basic science work in Sweden. It also supports a range of other studies looking at mechanisms of behaviour change and other studies on the risk of early drug and alcohol exposure.

The Knut and Alice Wallenberg Foundation and the Riksbanken Jubileumsfond Foundation are major funders of research. The Swedish Foundation for Strategic Research supports molecular biological research and is a major basic science research funder. Overall the range of research resources available in Sweden is very substantial. It is not clear proportionately how much investment occurs specifically in the area of drug problems.

It is very difficult to obtain a reliable figure for the costs of Swedish Drugs Research but a recent study of expenditure on drug policy in Sweden by Reuter et al. does not manage to include an estimate for overall drugs research, which might indicate that it's rather modest in comparison to other costs.

The Commission for Mobilization against Drugs was in place from approx. 2002 to 2007 and was involved in a wide range of discussions and project development and policy recommendations for National Drug Policy. In addition it has a budget of over 4 mill. Euro for commissioning research. It encouraged applications from individual researchers and also commissioned specific projects. There was a perception that this funding reduced the amount of other types of drug research as agencies expected the Commission for Mobilization against drugs to be primarily responsible for funding research.

This activity has now ceased and there is a perception that funding for drugs research has moved back into the mainstream with limited ear marked funding and limited funding to support projects that

Appendix 3.1**Country Report: Sweden**

focus on the more social and problematical aspects of drug use. Overall the view was that the debate on drug policy has become less intense and in the face of multiple social problems that drugs research has slipped in the list of national research priorities.

Table: Estimated Drug Policy Expenditures, Sweden, 2002 (in mill. €)

Category	Baseline	Low Estimate	High Estimate	Baseline Fraction of total expenditures	Baseline Per capita
Prevention	8	8	8	0.8 %	0.9 €
Treatment	175	130	220	18.4 %	19.7 €
Harm Reduction	28.5	24	33	3.0 %	3.2 €
Enforcement	738.5	339	1138	77.7 %	83.0 €
Total	950	501	1371	100.0 %	106.7 €

The Center of Social Research on Alcohol and Drugs is one of the key institutions involved in applied research. It has a large staff and is part of the University of Stockholm. The core grant which provided resources for the establishment of SoRAD comes from a national research council now named the Swedish Council for Working Life and Social Research, Forskningsrådet för arbetsliv och socialvetenskap (FAS) (previously the Council for Social Research).

In addition to its core grant from FAS, the Centre's work in 2004 and in the coming year is supported by grants from a variety of Swedish and international sources, including the Ministry of Health and Social Affairs, FAS, the National Institute of Public Health, the Nordiska samarbetsnämnden för samhällsforskning (NOS-S, Nordic Joint Board for Social Research), the U.S. National Institute on Alcohol Abuse and Alcoholism (NIAAA), and the European Union.

There are a range of skilled researchers in a number of different institutions across Sweden. Both the Karolynska Institute and Uppsala University have some strong biomedical research programmes and receive substantial funding both at a municipal and at a national level.

There has been involvement in a number of EU collaborative research projects but the overall view was these projects has been limited in quality and had not been sources of high quality research activity.

Coordination of research funding

There are two main streams of research funding and the basic science funding is channelled through the Swedish Research Council which consults key stakeholders on priorities including consulting the Department of Education, Research and Culture. The more applied stream of research comes through the Swedish Council for Working Life and Social Research. The Commission for the Mobilization against drugs performed a coordinating role during the past five years, but since the cessation of this agency it is not clear what the formal coordination mechanism is now.

Priorities

The current priorities are around the translation of evidence into practise. This includes an approach to transnational work to see some application of basic science work into clinical practice and more importantly on the prevention and treatment side the development of guidelines and recommendations based on evidence to guide the organisation and delivery of interventions.

UNITED KINGDOM

Summary

The UK is a major producer of research products in the drug misuse field. Relatively in the EU, the UK has one of the largest bodies of scientific literature which has been supported by study and programme grant support by governmental department, research councils, national health service (NHS) organisations and charitable foundations and bodies. Against a background of basic science research, demand reduction and studies of the risks and harms associated with drug misuse have been undertaken by research centres based in the university sector. There is a perception that while the UK research base in this field is of high quality, there is substantial scope for increased capacity and improved cross-disciplinary links to foster innovation and the translation of results into practice.

However, it is worthy of note that the recent suite of clinical guidance published in 2007 noted a lack of UK based randomised controlled trials (RCT) and evaluations of implementation of new evidence-based initiatives in relation to drug treatment and prevention interventions. As a consequence, the 2007 suite of drug treatment clinical guidance was heavily reliant on RCT evidence from the USA and other countries. National Institute for Health and Clinical Excellence (NICE) made recommendations for research in each of their five guidance documents published in 2007.

History of strategic development and vision behind the development of research capacity and funding structure in the field of (drug) addiction

The history of UK research in the field is not readily characterized by clear strategic development of research, apart from two instances. The first relates to the emergence of the HIV threat to the drug injecting population and the perceived need to evaluate the impact of needle and syringe distribution programmes which has been quickly set up in many part of the country in the late 1980s and early 1990s. Then, in 1994, a Department of Health task force to review services for drug misusers commissioned the National Drug Treatment Monitoring Study (NTORS) to contribute to strategic direction of national policy in the field. This observational, prospective cohort study was needed because of the general lack of evidence for the impact of UK treatment services. The results of the study were influential in the establishment of a 'treatment works' commitment among central government departments which, in part, contributed to the creation of a new investment programme in treatment (and similar studies undertaken in Scotland [DORIS] and more recently again in England [DTORS]). It is less obvious that the study was instrumentally important for the strategic direction for research. The tackling crime and safer communities goal - central to the national drug misuse policy agenda – stimulated a raft of crime-oriented research to guide and support this approach. Arguably, this had the consequence that there was a reduced investment in public-health and treatment efficacy and effectiveness research, which is only now being re-balanced.

Future strategic approaches aimed at building capacity and infrastructure

It is well recognised in the UK that the etiology, natural history, risks, causes and harms of addiction are not well understood. Novel prevention and demand reduction interventions are therefore needed. There is also a stated goal to promote the translation of research into improved public health in the drug misuse area.

The 2008 National Drug Strategy has a commitment to develop an unpinning national drug research strategy: "Across the entire strategy – including how it is delivered at a local level – we will enhance our knowledge of what works and what delivers the most effective and efficient services by conducting a cross government programme of research and pilot programmes." In the corresponding national action plan, there is a commitment to develop a cross government research plan, aligned to the developing international evidence base. This plan has been developed with key stakeholders including: government departments, the National Institute for Health Research (NIHR), the Medical Research Council (MRC), the Advisory Council on the Misuse of Drugs and the National Treatment Agency. There has also been consultation on drug demand reduction research priorities (with key academics, practitioners, commissioners and users) during the development of the drug strategy and by the MRC. The cross cutting research strategy will be finished in early 2009.

One of the most notable developments is the strategic vision underpinning a new development approach from the National Institute for Health Research (NIHR) led by the Medical Research Council (MRC). This initiative is at an early stage but involves discussion with stakeholders about areas of priority need and calls for grant applications.

Recently, MRC has launched an initial funding call for proposals that concerns pilot/proof-of-principle funding and seeks to make better use of existing research 'infrastructure' (defined to include surveys, databases, cohorts, clinical networks and genotyping and brain imaging facilities). A total of £6 mill. has been made available by the MRC for this initiative. MRC seeks academic scientific input to the strategy from outside the addiction field to work with the existing addiction researchers and aims to establish a small number of interdisciplinary research clusters to focus on a specific addiction topic. The topics of these clusters have yet to be determined but are likely to encompass a broad sweep from basic to social science arenas.

RESEARCH TOPICS AND INFRASTRUCTURE

Key research organisation involved at national level

A very wide range of university departments housing dedicated research centres, as well as research activity associated with public treatment services delivered by the NHS and voluntary sector are involved in the delivery of research products in the field. This research base is widely distributed

Appendix 3.1**Country Report: United Kingdom**

across the country with key centres in all the major metropolitan areas. Research products are also delivered by internal work conducted by key government departments including the Department of Health and Home Office. The following is a list of the main university research groups and institutes currently undertaking drug-related research:

- Addictions Research Group, Keele University,
- Birmingham Alcohol, Drugs, Gambling & Addiction Group, University of Birmingham,
- Centre for Addiction Research & Education Scotland, University of Dundee,
- Centre for Drug Misuse Research, University of Glasgow,
- Centre for Drugs & Health Behaviour, London School of Hygiene & Tropical Medicine,
- Centre for Public Health, Liverpool John Moores University,
- Department for Health Science, University of York,
- Department of Addictive Behaviour, St. George's, University of London,
- Drug & Alcohol Research Group, Middlesex University,
- International Centre for Drugs Policy St. George's, University of London,
- Mental Health Research and Development Unit, University of Bath,
- National Addiction Centre, Institute of Psychiatry, King's College London,
- National Drug Evidence Centre, University of Manchester,
- Oxford Substance Misuse Research Group, Oxford Brookes University,
- Scottish Addiction Studies, University of Stirling,
- Community Safety Division of the Welsh Assembly Government's Department for Social Justice and Local Government,
- Crime and Drugs Analysis and Research, Home Office¹,
- Drug and Alcohol Information and Research Unit within DHSSPSNI,
- Drugs Analytical Team, Justice Analytical Programme,
- Health Promotion Agency,
- Office for Science and Technology (OST), former Department for Trade and Industry (DTI),
- The Alcohol and Drugs Policy Branch (ADPB) within the Department for Health, Social Services and Public Safety Northern Ireland (DHSSPSNI),

¹ <http://www.homeoffice.gov.uk/rds/drugs1.html>.

Appendix 3.1**Country Report: United Kingdom**

- The Drug Misuse Research Initiative (DMRI)², and
- The National Treatment Agency (NTA).

Key research areas

In total 40 research projects meeting the criteria were found for the UK.

Research area	Sub-topic	Projects	Substances
1. Drug mechanisms, effects and methods of detection	1.1 Mechanisms of action	1	Substance not specified (1)
	1.4 Clinical psychology	3	Multiple illegal substances (1), Combined legal and illegal substances (1), Substances not specified (1)
2. Aetiology and course	2.1 Aetiology	4	Substance not specified (4)
3. Epidemiology	3.1 Population based	7	Combined legal and illegal substances (3), Multiple illegal substances (3), Substance not specified (1)
	3.2 Clinical target groups	1	Cannabinoids (1)
	3.3 Other specific target groups	2	Substance not specified (2)
4. Intervention	4.1 Environmental prevention	1	Substances not specified (1)
	4.2 Person-oriented prevention	2	Substances not specified (2)
	4.3 Treatment	17	Substance not specified (12), Opioids (3), Multiple illegal substances (1), Other stimulants including caffeine (1)
6. Legal frameworks	6.1 Illicit drug related law	1	Cannabinoids (1)
9. Meta area	9.1 Meta area	1	Substances not specified (1)

Research publications/visibility

A total of 883 publications were identified as meeting the inclusion criteria in all four years. For all years “clinical and research assessment” and “epidemiology or survey research reports” were the type of publication most frequently identified. However, more notable is the limited publication reports on universal prevention projects, “policy and legal” or “criminological and drug supply” publications and associated citations. The “Review” papers identified across the four years predominately focused on related clinical disorders or treatment related issues.

² <http://www.mdx.ac.uk/www/drugsmisuse/>.

Appendix 3.1

Country Report: United Kingdom

Research area	Year of publication							
	2001		2002		2005		2006	
	P*	C**	P	C	P	C	P	C
A Basic Brain Science	24	763	18	312	19	243	17	82
B Epidemiology and surveys	73	1336	55	1429	73	908	46	233
C Clinical and research assessments	46	990	36	812	62	585	68	339
D Prevention	1	10	1	9			1	4
E Demand and harm reduction	28	386	31	263	26	119	38	142
F Criminological and drug supply	5	37	3	33	9	41	5	11
G Policy and Legal frameworks	1	3						
H Reviews	46	692	43	1008	63	732	46	206
Total	224	4217	187	3866	251	2628	221	1017

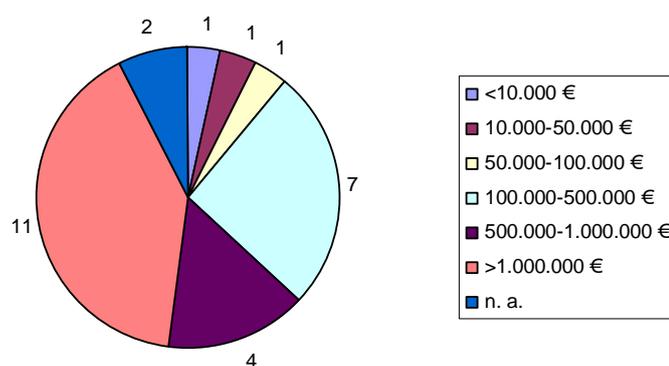
* No of publications

** No of citations

FUNDING STRUCTURE

Funding agencies and research budgets

The majority of research projects in the UK is funded by national public agencies (e.g. Medical Research Council, Home Office, Department of Health) or other national charitable organisations (e.g. regional authorities and municipalities, private organisations). These funding bodies have traditionally developed independent funding priorities and strategic direction and this is likely to continue at least in the medium term. In the context of the total production of research knowledge in the UK, support from the European Commission plays a relatively minor drug-related research including funding from DG SANCO, DG JLS and DG RTD. Total research budgets of single projects vary from less than 10,000 € for some regional prevention programmes to a maximum of 12,656,338 € for one aetiological study funded by the European Commission.



Appendix 3.1

Country Report: United Kingdom

UK funding agencies

- Drug Misuse Research Initiative³,
- CARES Centre for Addiction Research and Education Scotland, Dundee⁴,
- Joseph Rowntree Foundation, York⁵,
- National addictions centre (Kings College / Maudsley Institute of Psychiatry, London)⁶,
- NCCDP National Collaborating Centre for Drug Prevention, Liverpool⁷,
- SSA Society for the Study of Addictions, York⁸,
- Alcohol Concern⁹,
- Misuse Association of Therapeutic Communities¹⁰,
- DASS Addiction Interest (Scottish Addiction Studies)¹¹,
- Kings fund¹²,
- NICE (national institute for health and clinical excellence)¹³,
- NCCDP National Collaborating Centre for Drug Prevention, Liverpool¹⁴,
- National drug evidence centre¹⁵.

EC funded projects

Funding agency	Projects	Funding structure	Funding programme	Funding volume
5 DG SANCO	3	Single project (3)	Health research budget (3)	1,678,711 €
6 DG JLS	4	Single project (4)	Criminal justice research budget (4)	552,565 €
7 DG RTD	4	Single project (4)	Health research budget (3), Addiction research budget (1)	10,585,144 €
Total				12,816,420 €

Coordination of research funding

The UK Drug Strategy is a cross government initiative with the Home Office taking overall responsibility for delivery. The Department of Health has responsibility for treatment targets and a programme of research to support this. The Department's National Treatment Agency (NTA) has an active programme of research which focused on demonstration and pilot projects designed to support

³ <http://www.mdx.ac.uk/www/drugsmisuse/index.html>.

⁴ <http://www.dundee.ac.uk/psychiatry/cares/>

⁵ <http://www.jrf.org.uk/default.asp>.

⁶ <http://www.iop.kcl.ac.uk/iopweb/departments/home/default.aspx?locator=346>.

⁷ www.cph.org.uk/nccdp – <http://www.drugpreventionevidence.info/>.

⁸ <http://www-users.york.ac.uk/~sjp22/addiction/index.htm>.

⁹ <http://www.alcoholconcern.org.uk/servlets/home>.

¹⁰ <http://www.therapeuticcommunities.org/>.

¹¹ <http://www.dass.stir.ac.uk/sections/scot-ad/index.php>.

¹² <http://www.kingsfund.org.uk/>.

¹³ <http://www.nice.org.uk/>.

¹⁴ www.cph.org.uk/nccdp, <http://www.drugpreventionevidence.info/>.

¹⁵ <http://www.medicine.manchester.ac.uk/ndec/>.

Appendix 3.1**Country Report: United Kingdom**

and guide the transfer of research findings into treatment services as well as overall outcome monitoring and evaluation of the investment of treatment. The devolved administrations also commission and fund research to support the development of their drug strategies. Government research is occasionally carried out in-house but is often commissioned from outside providers using competitive tendering for contracts: the Economic and Social Research Council (ESRC), Medical Research Council, Joseph Rowntree Foundation, the Robertson Trust (EMCDDA UK National Report, 2007). All identified projects were realised as single projects.

In European framework programmes, UK drug-related research programmes are usually funded under health or criminal justice labels (DG SANCO: Public Health Programme, Strand 3 "Promoting health and prevent disease through addressing health determinants across all policies and activities"; DG JLS: Programme for police and judicial co-operation in criminal matters AGIS; DG RTD: 5th Framework Programme, Sub-programme area "Public health and health services research").

Priorities

The Government cross cutting research strategy, with priorities for demand reduction and supply reduction initiatives will be finished in early 2009. Over the next 3 years, the aims of the new NIHR strategy are to make better use of existing resources and build research capacity and multi-disciplinary research "clusters". The goal is to stimulate the production of biological, medical and social research to address key topics in the field of drug misuse and addiction. There is also recognition of the need for greater coordination among research funders and policy commissioners to develop a more concerted funding strategy to inform and guide the national drugs strategy.

Appendix 3.2

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Situation of drug related research in the United States of America
Drug Abuse Research in the United States: Structure, Funding, Progress

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1 Abstract

Although the United States has had a long history of concern about the abuse of drugs it was not until 1974 with the establishment of the National Institute on Drug Abuse (NIDA) that a national drug abuse research program was possible. Over the past three decades, NIDA has been the primary consistent funding source for drug abuse research while foundations and other governmental agencies provide research support to a lesser degree. This report reviews this history of the structure and funding of drug abuse research in the U. S. and makes recommendations for improvements particularly around setting a research agenda, assuring stable funding and training new generations of researchers.

2 History of strategic development and vision behind the development of research capacity and funding infrastructure

Although the history of drug abuse research in the United States has early origins in the work of several commissions and legislative mandates in the nineteenth and early twentieth centuries, focused efforts to study drug abuse began in the 1930s with the establishment of the narcotic hospitals in Fort Worth, Texas and Lexington, Kentucky under the aegis of the United States Public Health Service (Musto, 1996). The research unit set up in the Lexington facility became the Addiction Research Center (ARC) in 1948 and was moved to the National Institute of Mental Health (NIMH), then associated with the National Institutes of Health (NIH) that formed the central federal focus on clinical and related research around a number of health issues. Eventually the ARC was integrated into the newly formed NIDA in 1974, and the hospitals were closed. Clearly the Public Health Hospitals and the ARC supported many prominent researchers in the developing field of substance abuse research. With the establishment of NIDA, funding for drug abuse research was increased, and a national research program developed.

Up to 1992 NIDA with the ARC, NIMH and the National Institute on Alcoholism and Alcohol Abuse (NIAAA) constituted the Alcohol, Drug Abuse and Mental Health Services Administration (ADAMHA). Both services and research were funded through ADAMHA. However, tensions between funding research or services led to the separation of the organizations in 1992 under the ADAMHA Reorganization Act (P.L. 101-321) with the research components moving to the NIH and the service components organized under the umbrella agency, Substance Abuse and Mental Health Services Administration (SAMHSA), as the Center for Substance Abuse Prevention (CSAP), the Center for Substance Abuse Treatment (CSAT) and the Center for Mental Health Services (CMHS) Although primarily focused on services, some SAMHSA funds are used for research mostly related to dissemination or demonstration programs, the evaluation of ongoing service programs, and support of national data systems such as the National Household Survey on Drug Use and Health, Drug Abuse Warning Network, National Survey of Substance Treatment Services, and the Treatment Episode Data Set (former systems of NIDA).

Several other federal agencies support drug abuse research. Under the U.S. Department of Health and Human Services (that includes NIH and SAMHSA), the Center for Disease Control and Prevention supports community-based research while under the U.S. Department of Justice under the National Institute of Justice and the Office for Juvenile Justice and Delinquency drug abuse research as it relates to violence or crime is supported. The U.S. Department of Defense is another agency that supports some drug abuse research mostly related to supply reduction and treatment. Other federal agencies that may be conducting and supporting research on drug-related issues include: Department of Agriculture, Department of Homeland Security, Department of the Interior, The Federal Judiciary, Department of Labor, Department of State, Department of Transportation, Department of the Treasury, and the Department of Veterans Affairs. The White House

Country Report – United States of America

Zili Sloboda

Office for National Drug Control Policy (ONDCP) coordinates drug abuse-related activities across federal agencies and links to state and local community organizations. The ONDCP also has been given the responsibility to oversee research efforts including The Youth Anti-Drug Media Campaign evaluation and funding prevention programming and evaluation in communities under Drug-Free Communities grants. More information regarding what these agencies do and what funds are made available for drug abuse-related activities can be found on the individual agency's websites or that of ONDCP. Table 1 is a summary of federal dollars spent in the U.S. on drug control between Fiscal Years ¹ 2001 and 2007. Please note that although other agencies may be conducting research related to prevention and treatment, NIDA's total budget represents over 90% of funds allocated as prevention and treatment research in the budget.

Table 1 Office of national drug control policy report on spending (in millions) fiscal year (october 1 through september 30)

	2001		2002		2003		2004		2005		2006		2007	
	DOLLARS	PERCENT												
TREATMENT (RESEARCH)	3335 (497.2)	18.4 (2.7)	3151.9 (547.8)	27.4 (4.8)	3223.9 (611.4)	28.3 (5.4)	3028.3 (607.2)	25.5 (5.1)	3053 (621.2)	24.1 (4.9)	2941.9 (600.3)	22.4 (4.6)	3060.9 (600.8)	22.1 (4.3)
PREVENTION (RESEARCH)	2578.7 (352.6)	14.3 (1.9)	2064.5 (367.4)	18 (3.2)	1966.4 (382.9)	17.3 (3.3)	1962.8 (412.4)	16.5 (3.5)	1952.1 (422.0)	15.4 (3.3)	1862.6 (411.5)	14.3 (3.2)	1841.8 (413.2)	14.3 (3.0)
DOMESTIC LAW ENFORCEMENT	9463.8	52.2	3270.3	28.5	2954.1	25.9	3182.9	26.8	3317.9	26.2	3474.7	26.7	3748.8	27.1
INTERDICTION	2054.9	11.4	1913.7	16.7	2147.5	18.8	2534.1	21.4	2927.9	23.1	3285.6	25.3	3175.9	22.9
INTERNATIONAL	663.2	3.7	1084.5	9.4	1105.1	9.7	1159.3	9.8	1393.3	10.5	1434.5	11	2016.6	14.6
TOTAL	18095.7		11484.9		11397		11867.4		12644.2		12999.3		13844	
Total Research	849.8		915.2		996.3		1019.6		1043.2		1011.8		1014	
NIDA Total Budget	792	93.2	891	97.4	968	97.2	987.2	96.8	1006.4	96.5	998.9	98.7	1000	98.6

Individual state governments also fund research however most of this support comes through the federal government. A portion of state budgets supports in-state data collection that varies across states (e.g., school surveys, outcome data from prevention and treatment programs). It is not clear from reviewing state budgets how much of state funding is allocated to these data collection efforts or to research conducted by universities and institutes. The websites for the largest states, California and New York, do not highlight ongoing funding for research (see http://search.ca.gov/search?q=grants&output=xml_no_dtd&site=ca_adp&client=ca_adp&proxystylesheet=ca_adp; <http://www.oasas.state.ny.us/hps/grants/grants.cfm>). These observations are reiterated in the National Academy of Sciences' report, Pathways to Addiction: "During its brief history, drug abuse research has been supported mainly by the federal government, with occasional investments by major private foundations. At the federal level, the lead agency for drug abuse research is the National Institute on Drug Abuse ..." p. 14.

In general few private foundations support drug abuse research. During the 1990s the Robert Wood Johnson Foundation was most likely the second major source of funding after the federal government for services and research on substance abuse with an emphasis on prevention and treatment. However, in the early 2000s with new leadership, the Foundation narrowed the substance abuse research focus to underage drinking, tobacco use and substance abuse policy. Figures 1 and 2 show the distribution of funding made by the Foundation in 2007.

¹ A fiscal year runs from October 1 through September 30.

Figure 1 The Robert Wood Johnson Awards for 2007 Distribution of Awards in Targeted Portfolio, by Program Area (\$227.84 Million)

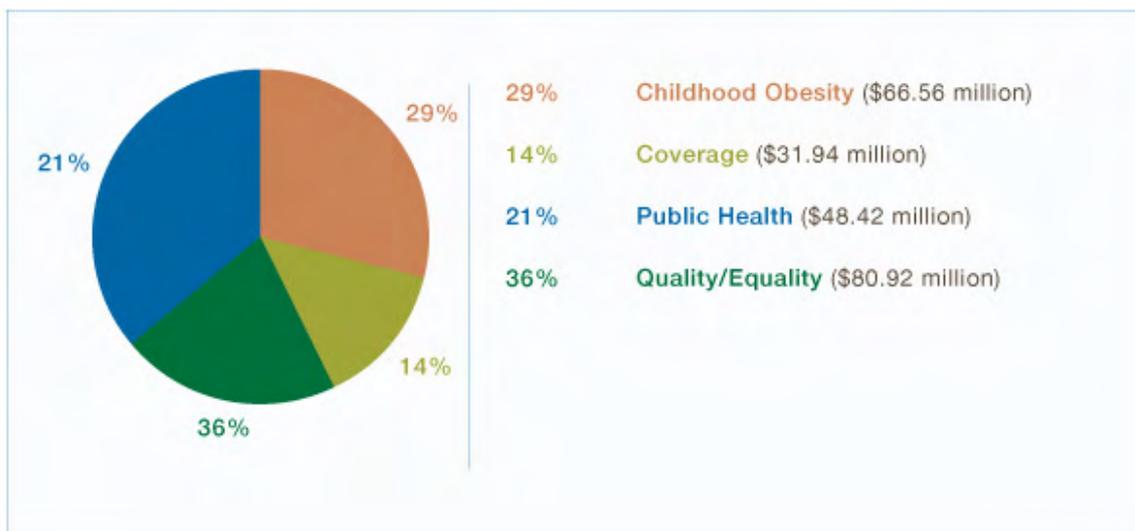
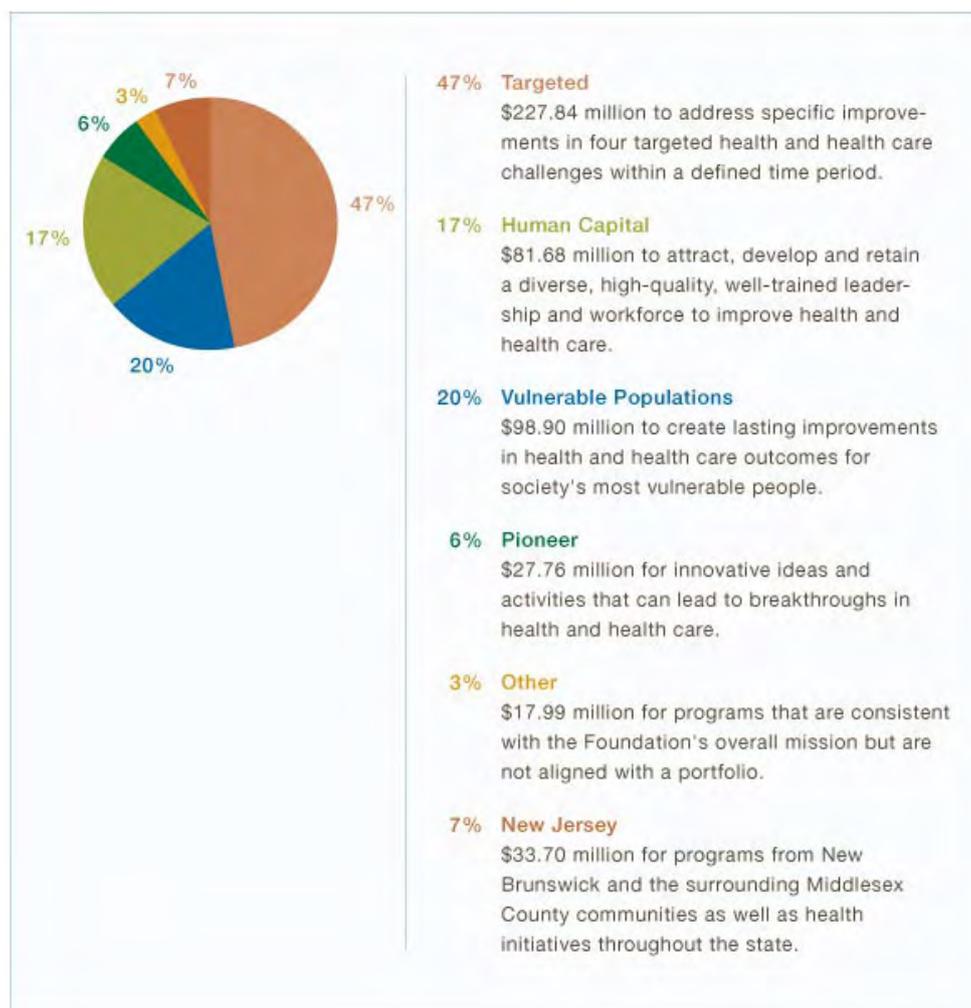


Figure 2 The Robert Wood Johnson Awards for 2007 Distribution of Awards by Portfolio (\$487.87 million)



3 Future strategic approaches aimed at building research capacity and research funding infrastructure

Although there is no single body that builds the nation's infrastructure to conduct and fund drug abuse research, the most influential remains the NIDA. Every five years NIDA in partnership with a large number of constituent groups develops a strategic plan for the next five years. The current strategic plan is in draft form awaiting comments from the field and is included in the appendix. At the time of this writing, workgroups are meeting around specific items in the plan. These groups have been composed primarily of researchers both those receiving funding from NIDA and those who do not receive such funding. In addition, NIDA works with a group called the Friends of NIDA who have provided feedback on the current plan. Friends of NIDA (FNIDA) consist of an advisory board made up of former "drug czars" who headed the Special Action Office for Drug Abuse Policy and the Office for National Drug Control Policy, former NIDA Directors, and former chairs of Congressional committees. The membership of FNIDA includes over 40 major professional and service organizations (e.g., American Psychiatric Association, American Psychological Association, American Society for Addiction Medicine, Community Anti-Drug Coalitions of America, Join Together and the College on Problems of Drug Dependence). When the process of review and feedback is completed (Spring 2009) the strategic plan will be finalized and will structure announcements, meetings, and other methods to stimulate research in the new priority areas of research (more details of these methods are presented below).

3.1 Building Research Capacity

In addition to setting research priorities, these plans put forward funding mechanisms for the training of researchers at all levels from pre- to post-doctoral training. In addition, specific organizations such as the Society for Prevention Research, American Academy of Addiction Psychiatry, American Foundation for AIDS Research and American Society for Addiction Medicine and NIDA-funded research centers provide opportunities for training through workshops and courses.

The Centers that are funded by NIDA (information regarding definitions of centers are provided below) are university-based and conduct multidisciplinary research in key areas such as prevention, treatment, epidemiology, and neuroscience and are formally structured for training both within the center through post-doctoral work and through course offerings such as summer institutes, seminars, or workshop series. More thoughts on training issues are also available in the Institute of Medicine's report, *Dispelling the Myths about Addiction: Strategies to Increase Understanding and Strengthen Research* (1997).

A Funding structure

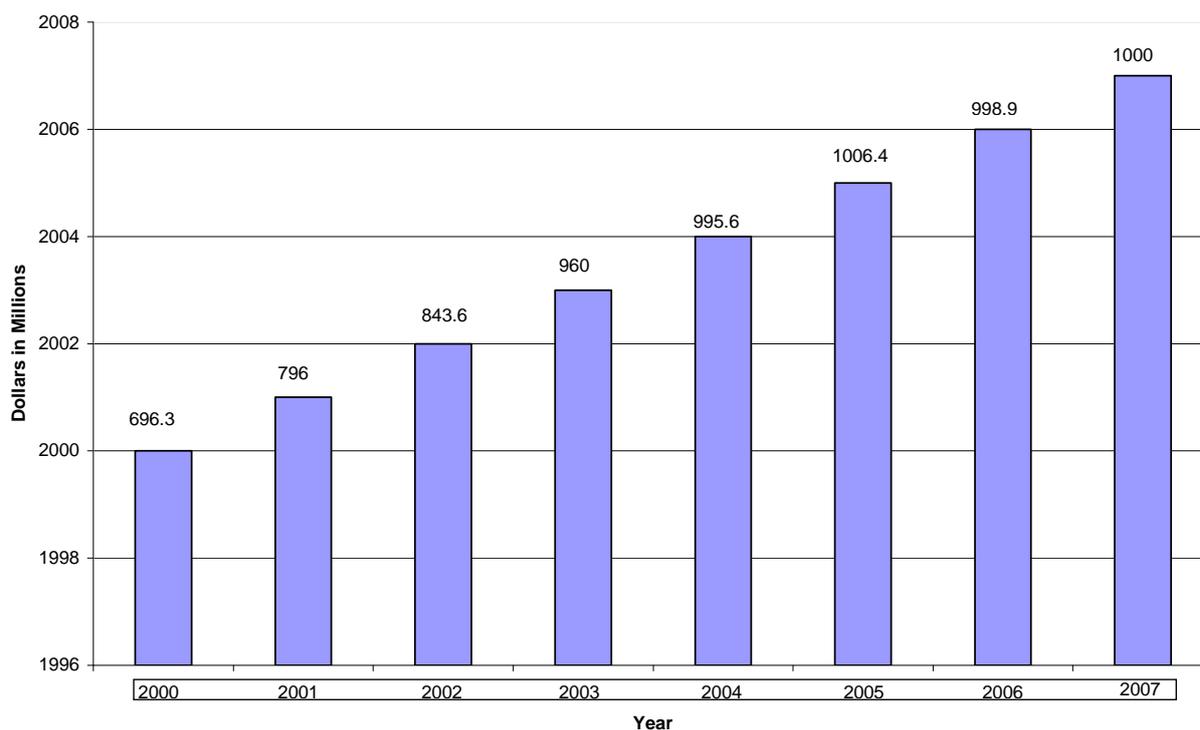
4 Funding agencies (brief description) and research budgets

As indicated above, in 1992 the Alcohol, Drug Abuse and Mental Health Administration (ADAMHA) was reorganized to separate the services supported operations from those that represented research. The newly created service organization became the Substance Abuse and Mental Health Services Administration consisting of three Centers: the Center for Substance Abuse Prevention (CSAP), the Center for Substance Abuse Treatment (CSAT), and the Center for Mental Health Services. The research organizations, the NIDA, NIAAA, and NIMH were moved under the large umbrella of the National Institutes of Health² (NIH). Although NIDA always had both an intramural (where NIDA employed scientists conducting their own research) and an extramural research program (research conducted by external scientists, mostly university based through grants), by joining the NIH it could draw on a more extensive granting experience and support.

4.1 Federal Research Budgets

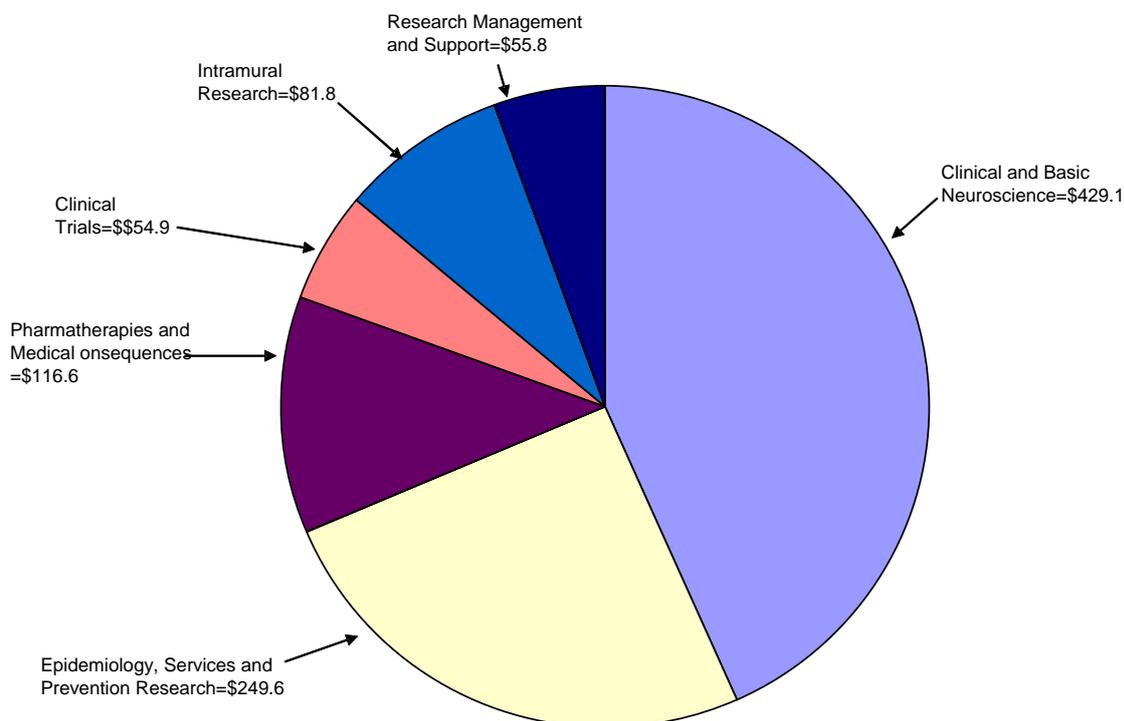
The White House Office for National Drug Control Policy (ONDCP) estimated that the range of funding for treatment and prevention research went from \$849.8 million to \$1,014 million between Fiscal Year (October 1 to September 30) 2001 and 2007 (ONDCP, 2008). It is not clear how these categories are compiled for information on funding for NIDA's research program is not comparable. The funding levels for the same period of time provided by NIDA (Figure 3) include research management and support ranging from \$696.3 million in FY 2000 to \$1,000 million in FY 2007 (NIDA, 2004; 2008). These figures represent over 94% of the ONDCP's estimates. They also show a 34% per capita (U.S. population) increase over time from \$2.47 in FY 2000 to \$3.32 in FY 2007 (these figures are not adjusted for inflation).

² The NIH consists of the National Cancer Institute, National Eye Institute, National Heart, Lung and Blood Institute, National Human Genome Research Institute, National Institute on Aging, National Institute on Alcohol Abuse and Alcoholism, National Institute of Allergy and Infectious Disease, National Institute of Arthritis and Musculoskeletal and Skin Diseases, National Institute of Biomedical Imaging and Bioengineering, National Institute of Child Health and Human Development, National Institute on Deafness and Other Communication Disorders, National Institute of Dental and Craniofacial Research, National Institute of Diabetes and Digestive and Kidney Diseases, National Institute on Drug Abuse, National Institute of Environmental Health Sciences, National Institute of General Medical Sciences, National Institute of Mental Health, National Institute of Neurological Disorders and Stroke, and the National Institute on Nursing.

Figure 3 Funding Levels for the National Institute on Drug Abuse, FY 2000 to 2007

Sources: <http://www.drugabuse.gov/funding/budget04.html> retrieved 08/10/08;
<http://officeofbudget.od.nih.gov/ui/2008/NIDA.pdf> retrieved 8/10/08

Information was available on NIDA's website for the distribution of research funding by category of research (representing the major divisions of NIDA) for FY 2007 (Figure 4). Clinical neuroscience research received \$429.1 million; epidemiology, services (treatment) and prevention, \$249.4 million; pharmacotherapies and medical consequences, \$116.6 million; clinical trials, \$54.4 million; and, international, \$81.2 million. Of the total research budget, \$81.8 million was for intramural research. Research management and support received \$55.8 million for salaries and processing of research and research applications (NIDA, 2008).

Figure 4 Distribution of NIDA FY 2007 Funds By Research Area (in Millions)

Source: <http://www.drugabuse.gov/PDF/Funding/CJ2007.pdf> retrieved 08/10/08

4.2 Mechanisms for funding research

Two major research programs exist at NIDA; intramural and extramural. This section will focus on the extramural program of research. The intramural program is discussed in Section 7.

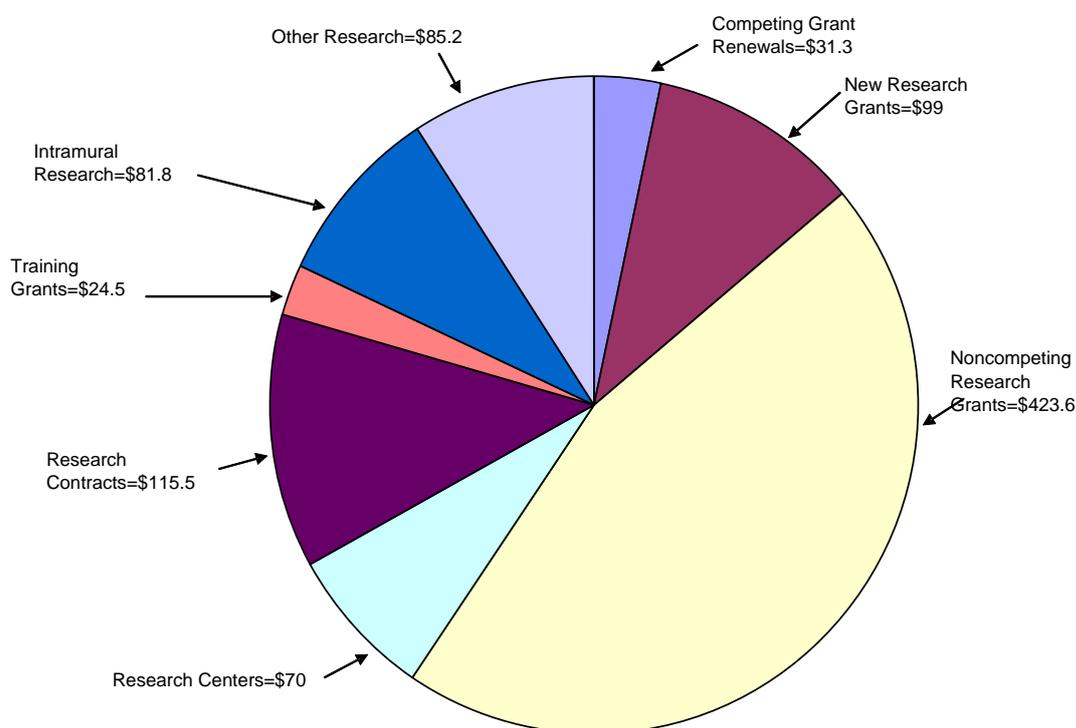
The extramural program at the NIH was established for "...research conducted by investigators in universities, academic health centers, and independent research institutes. In addition to producing extraordinary scientific and medical advances, the policy of supporting research in academia insures a continuing supply of well-trained researchers, because graduate students and postdoctoral fellows are able to learn by participating in cutting-edge research". (Manning et al., 2004; p.15). Although over 90% of supported extramural research is conducted by individual or a small group of investigators, about 8% is conducted in multidisciplinary centers. Until recently, there were no standard or uniform definitions of a research center at the NIH. In a recent review of the NIH extramural program (IOM, 2004), the status of center programs was examined and recommendations were made to use common terminology as to the intent and components of centers. The criteria that were developed are presented in Appendix A. It was further recommended that centers undergo ongoing, periodic assessments to determine their effectiveness in producing research results.

Table 2 NIDA Division and Branches

<p>Division of Epidemiology, Services and Prevention Research</p> <ul style="list-style-type: none"> • Epidemiology • Services • Prevention <p>Division of Basic Neuroscience and Behavioral Research</p> <ul style="list-style-type: none"> • Behavioral and Cognitive Science • Chemistry and Physiological Systems • Genetics and Molecular Neurobiology • Functional Neuroscience Research <p>Division of Clinical Neuroscience and Behavioral Research</p> <ul style="list-style-type: none"> • Behavioral and Brain Development • Clinical Neuroscience • Behavioral and Integrative Treatment <p>Division of Pharmacotherapies and Medical Consequences of Drug Abuse</p> <ul style="list-style-type: none"> • Medical Consequences • Chemistry and Pharmaceuticals • Medication Discovery and Toxicology • Regulatory Affairs • Medication Research • Clinical/Medical • Addiction Treatment Discovery Program

The Institutes' extramural research programs generally are organized in Divisions and Branches whose missions reflect the major foci of those Institutes' research. At the NIDA, the extramural program includes four divisions and one center. The divisions are: Division of Epidemiology, Services and Prevention Research, Division of Basic Neuroscience and Behavioral Research, Division of Clinical Neuroscience and Behavioral Research and Division of Pharmacotherapies and Medical Consequences of Drug Abuse. Table 2 presents the branches that make up these groups. The Center for Clinical Trials Network manages a multi-site research program of behavioral, pharmacotherapeutic and integrated treatment interventions delivered in the community.

The mechanisms used for funding research for FY 2007 are shown in Figure 5. These mechanisms include investigator initiated research. These awards are made from one up to five years and are renewed yearly (noncompeting renewals). Investigators who want to continue their research after the award period can reapply as competing applications. The format for these applications is somewhat different than new research applications as they will include the results of the prior research. Other mechanisms are new applications, applications for training, and applications for research centers. There are different time schedules for receipt and review for these mechanisms. Below is a description of the major mechanisms. Please note the differences between Career Development Awards and Research Training and Fellowships.

Figure 5 Distribution of NIDA FY 2007 Funds by Mechanism (in Millions)

The research applications one can apply for fall into four categories: (1) Research Grants, (2) Career Development Awards, (3) Research Training and Fellowships, and, (4) Program Project/Center Grants. A brief description of each is presented below. Details regarding the criteria for these application types can be seen at http://grants.nih.gov/grants/funding/funding_program.htm

- **Research Grants**

There are several categories of research grants: research project grant program, small grant program, support for conferences and scientific meetings, academic research enhancement awards, exploratory/development awards, and clinical training awards. In addition, small businesses can apply for funding for technology transfer and innovative research. The research project grant program is the most commonly used mechanism to support of research. This grant program supports well-defined research for periods of three to five years and has no dollar limit (although grants requiring more than \$500,000 or more in any year requires advanced permission from NIH prior to submission of an application).

The small grant program provides funding for up to two years and is limited to \$50,000 per year. This type of grant generally is sought for pilot studies, secondary analyses of existing data, or the development of new research technology.

Applications for scientific conferences require advanced permission and are limited to domestic institutions. The limit on the amount of the awards varies by Institute.

The academic research enhancement award is a mechanism to support limited research being conducted by students and faculty in institutions that have not been major recipients of

NIH research grant funds. Funding is limited to \$150,000 over the entire project period up to three years.

The developmental research grant program is a mechanism that supports new research, oftentimes pilot or feasibility studies. These grants generally are for two years with budgets that do not exceed \$275,000.

The clinical trial planning grant is designed to review the rationale for a proposed clinical trial for a period of one to three years with a limited budget. Finally the two small business grants (for technology transfer and innovative research) provide opportunities to stimulate those small business and research communities that specialize in commercialization of new technologies. Funding for three phases of research are generally available: feasibility studies to establish technical or scientific merit of the technology, research development including evaluations of the technology, and commercialization to distribute the new technology. Each phase has limitations on funding levels and duration.

- **Career Development Awards**

Concern about supporting both new and senior researchers has led to the career development awards. Awards are available to support a “protected time” of up to five years for the career development experience leading to research independence for those who come to a new area of research with training and experience in another, those who are senior researchers and wish to focus on a special area of interest, and for junior level researchers to work under the mentoring of a senior researcher.

- **Research Training and Fellowships**

Several mechanisms are available for training grants and fellowships. These awards are made to institutions most often universities and to individuals and support is provided to persons at various stages in the educational cycle. There are many restrictions on these awards including “payback” in terms of continued research or training.

- **Program Project/Center Grants**

Program project/center grants are large, multi-project efforts that generally include a diverse array of research activities. As with the other award program categories, there are several types of program project grant mechanism. The research program project grant mechanism supports multiple projects with each contributing to a related theme. There are no funding limitations on these awards. In addition, limited funds are made available through an exploratory award mechanism that supports the planning of a program project grant. The center core grants support shared resources and facilities for specific projects around a common theme being conducted by multiple investigators representing different disciplines. Although funded separately from a program project grant award, in general core grants are integrated into program projects to support the ongoing work of the investigators

5 Model of prioritisation and coordination of research funding

The focus of extramural research can be determined by NIH program scientists (NIH term for these individuals is program officers) or by individual investigators. There are also times when outside forces can influence a new direction for research through Congressional mandates.

Institute-initiated research arises when in the course of a periodic review of progress across a number of areas, significant gaps are noted. There are several mechanisms that program officers can use to encourage individual-investigators to submit applications for grant support to address specific research areas. These include:

- Program Announcements – solicitation for research proposals specific to an issue. For example the announcement to encourage research on the Economics of Treatment and Prevention Services for Drug and Alcohol Abuse requests “...applications on the economics of prevention and treatment services for drug and alcohol abuse. Such research projects might emphasize any of the following subjects: (1) financing and purchasing of drug and alcohol treatment and prevention services, including studies of health insurance and payment mechanisms; (2) economic incentives used to improve the quality and economic efficiency of treatment and prevention services (3) alternative delivery systems and managed care; (4) cost-benefit, cost-effectiveness, or cost-utility analyses; (5) service costs, production, and economic efficiency; and (6) research to develop or improve methods to be used in the economic study of drug and alcohol services.” Program Announcements generally are available of three years and are renewable for additional three-year periods.
- Requests for Applications—solicitation for research proposals to address a specific research question. For example, the request for applications was issued for Medications Development for Cannabis-Related Disorders requesting research with a “...focus on the identification, and preclinical and clinical evaluation of medications that can be safe and effective for the treatment of cannabis-use and -induced disorders, as well as their medical and psychiatric consequences.” Requests for Applications are generally a one-time opportunity with one receipt date for applications and generally with a specified amount of funding set aside for one or more projects.
- Requests for Proposals—solicitation for a contract that includes detailed specifications as to what the research issue is and how the research should be conducted. An example of a request for proposals is the announcement on the Quantitation of Drugs of Abuse and related substances in biological specimens. This solicitation requests “ ... proposals from qualified organizations having in-house capability to perform the following tasks: (1) to analyze experimental samples for drug concentrations in biological fluids and/or tissues, (2) to develop more specific and sensitive methods for existing drugs or compounds and provide analytical validations for such methods, and (3) to develop assays that are not currently available for compounds for which specific and sensitive assays are required by the drug abuse research community.” In order to handle substances under the Controlled Substances Act of 1970, it is mandatory that offerors possess a DEA Research Registration for Schedules II to V and demonstrate the capability to obtain a DEA registration for Schedule I controlled substances. NIDA anticipates this solicitation will be a 5-year cost reimbursement type contract.

Sometimes, Congress will mandate that an Institute will conduct research around a topic area. Oftentimes, the amount of funding for this research is expressed in the mandate. However, extra funds may not be given the Institute to support this research. An example where Congress did increase NIDA’s budget for a mandated area was “... to make grants to provide counselling and education services with respect to preventing the transmission of the etiologic agent directly or indirectly through intravenous substance abuse”, where about \$75,000,000 was appropriated for grants. At another time Congress mandated that 15% of NIDA’s research budget appropriation be “...earmarked for health services research...” with no additional funding provided.

Individual investigators may also apply for funding for a research idea that they initiate. In the past it was not necessary for independent investigators to “connect” their research concept to an existing program announcement. However, this has changed over the last few years and investigators are strongly recommended to include on the face sheet of the application a referenced program announcement. Most announcements are written broadly to accommodate individual researchers so it is rare that an investigator can not find a niche for

his/her research. Through this process research proposals will be assigned to the correct Institute and Division/Branch within that Institute. More importantly it will be sent to a review committee that includes researchers that represent the same area of research.

5.1 Peer Review

Solicitation and preparation of grant applications and their review are separate operations and fall under separate organizations. The program officials who are housed in the Branches within the Institute's Divisions solicit and assist in the preparation of grant applications. However, once an application is submitted for review, the Program Official must not have any contact with the applicant about that application. It has become important to separate these processes to assure objective reviews.

All applications for grant funding from external investigators are submitted for peer review to the Center for Scientific Review (CSR) at the National Institutes of Health. For applications responding to program announcements, there are three submission dates: February, June, and October. Generally, requests for applications and requests for proposals have one single date for submission that varies depending on when the "requests" are published. Prior to submission, it is recommended that those preparing an application for a grant contact a program official at the Institute. The program official will ask for a written summary of the intended application and in most instances are available to read early drafts to make recommendations for revision. In addition, as mentioned earlier, if the budget for the direct costs of the study are expected to exceed \$500,000 in any one year, written permission is required of the program official. This approval is sent on to the review arm of the NIH.

NIH receives over 70,000 applications a year. The CSR staff process the applications, decide whether the applications meet format standards and make assignment to a peer review group that may be a standing committee under the CSR or a specific Institute or an ad hoc committee formed around an individual program announcement (for a history of NIH review procedures over see: <http://www.nih.gov/about/almanac/organization/CSR.htm>).

All applications submitted under any announcement (program announcements, requests for applications, and requests for proposals) are reviewed by a committee of peers, i.e. researchers representing similar or related fields. These peer committees are either standing (i.e. appointed for a specific period of time generally up to three years) or ad hoc (i.e. requested to participate in a review on a one-time basis). The NIH has centralized most reviews but for requests for applications, requests for proposals, and other specific instances, each Institute will have its own review groups. The Ad Hoc review groups are most often convened by individual Institutes.

The review groups consist of a chair who is him/herself a researcher, a review administrator who represents the NIH, and a group of researchers. Prior to the review, each reviewer is sent specific proposal applications for review. In general two persons are assigned a proposal. If the proposed research is complex, three reviewers may be assigned. Reviewers serve as either first or second reviewer (or in the case of three reviewers, third). The first reviewer summarizes the intended research and presents the strengths and weaknesses of the proposal. This review is followed by the second and, if necessary, third reviewer who presents strengths and weaknesses not mentioned by the first reviewer. All reviewers provide an initial score for the proposal. Scores range from an outstanding of 1.0 to an unacceptable of 5.0. After all the reviews are presented, the chair may ask the reviewers if they want to change their initial scores. Then the committee discusses the application. Although committee members are asked to prepare a formal review of specific applications, they all must read all applications so they are prepared for the post-review discussion. After

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the discussion, the chair requests that each committee member score the application using the range of scores suggested by the reviewers. If a committee member wants to score outside of this range, s/he must prepare a minority statement to support that score. Each proposal is scored independently of all the other proposals.

Each investigator receives a summary of the reviewers' comments approximately two months after the review. These summary statements are also sent to the Institute's Council, a group of advisors to the Institute Director. These Councils meet three times a year, two to three months after the review. The reviews are discussed in closed sessions. After the Council meets, program staff recommends applications for funding. Generally the applications are ranked by their review scores. However, the staff may recommend applications out of order that are considered to be "high risk" and address particularly important and underrepresented research questions. Overtime the amount of funding that a research area receives depends greatly on the number of applications that are received in that area and how they are scored.

Institute program staff may attend reviews but are not permitted to speak about an application unless they are asked a direct question. Their attendance assures that when research applicants receive their summary statements and call their program official, the program official can clarify any ambiguities in the review and suggest areas for revision and help with a resubmission. Applicants can resubmit research program grants for review up to three times.

Specific criteria are used to guide the reviews. These criteria may change over time and may vary depending on the mechanism that prompted the applications.

Significance:

- Does this study address an important problem?
- If the aims of the application are achieved, how will this advance scientific knowledge? What will be the effect of this study on the concepts or methods that drive this field?

Approach:

- Are the conceptual framework, design, methods, and analyses adequately developed, well integrated, and appropriate to the aims of the project?
- Does the applicant acknowledge potential problem areas and consider alternative tactics? For applications designating multiple Project Directors/Principal Investigators (PDs/Pis), is the leadership approach, including the designated roles and responsibilities, governance and organizational structure consistent with and justified by the aims of the project and the expertise of each of the PDs/Pis?

Innovation:

- Does the project employ novel concepts, approaches or methods?
- Are the aims original and innovative?
- Does the project challenge existing paradigms or develop new methodologies or technologies?

Investigator:

- Are the PD/PI(s) and other key personnel appropriately trained and well suited to carry out this work?
- Is the work proposed appropriate to the experience level of the PD/PI(s) and other researchers?

- Do the PD/PI(s) and investigative team bring complementary and integrated expertise to the project (if applicable)?

Environment:

- Do(es) the scientific environment(s) in which the work will be conducted contribute to the probability of success?
- Does the proposed study benefit from unique features of the scientific environment, or subject populations, or employ useful collaborative arrangements? Is there evidence of institutional support?

Requests for applications and requests for proposals generally include criteria very specific to the focus of the solicitations. All criteria are included on the NIH website. For more information on peer review see Scheier and Dewey (2008).

6 Priorities for 2004 – 2006

The direction and support for research at the National Institutes of Health in specific areas often responds to the focus of the Director of the NIH as well as the Director of each institute. When the new NIH Director, Dr. Elias A. Zerhouni assumed his position in 2002, he began a process for developing a “road map” for biomedical research targeting where there are knowledge gaps and where the expertise of multiple NIH institutes is required. He created the NIH Common Fund in 2004 to support this cross-institute effort and in 2006 under the NIH Reform Act, Congress set aside \$30 million for fiscal year 2007 up to \$32 million for fiscal year 2008 for the Common Fund.

As a result, NIDA developed a draft Strategic Plan in 2007 (see Appendix) reflecting the NIH Road Map. Four research areas are considered: prevention, treatment, HIV/AIDS, and cross-cutting priorities. It should be noted that there is a heavy emphasis on neuroscience and genetics in this plan. Requests for comments on the Plan were sent out through a variety of channels. Many social and behavioral scientists, particularly those who conduct both drug abuse and HIV/AIDS prevention research responded expressing the obvious omission of these sciences in the Plan. As a result efforts are being made by NIDA to revise the Plan.

In the above section, the various structures for soliciting applications for research were presented—program announcements, requests for applications, and requests for proposals. These mechanisms provide another opportunity for the NIH institutes to communicate their priorities to generate research in areas of research not well addressed or to initiate research in totally new avenues. Appendix B provides a listing of requests for proposals from NIDA (generally issued only once) for the fiscal years (October 1 through September 30) 2005-2007 and program announcements (generally available for three years) for calendar years 2004 through 2006. Please note the diversity of the research areas represented. The classification used is unrefined but suggestive of emphasis priorities. It should be noted that some announcements are broad (e.g., Prescription Drug Use) and may include research areas that cut across several of the classifications. Many announcements are shared with other institutes and many, not included here are for research training at all academic levels for a broad array of disciplines.

B Research structure

7 Key research structures involved at national level

The above section extensively discussed the extramural research program of the NIH. This program of research support represents the largest outlay of funding for drug abuse research. Under the extramural program, research applications come primarily from domestic public and private universities or research institutes/centers. Non-profit and for-profit and foreign organizations are also eligible to receive grants, however, eligibility may be limited for certain types of grant programs. Small businesses who want to develop and market a product also can apply for funding but only under specific conditions. Although an effort is made to fund research from all types of research groups with the majority of funding going to major university-based research groups such as Harvard University, Yale, University of Chicago, the University of Pennsylvania. For example, The Alcohol and Drug Abuse Research Center at Harvard receives funds from both NIDA and NIAAA for four major research programs: The Behavioral Science Laboratory that studies preclinical models of substance abuse and dependence with a particular emphasis on evaluating the safety and effectiveness of new medications to treat drug abuse and pain; The Biological Psychiatry Laboratory that studies the interactions between biological factors and psychiatric and substance abuse disorders; The Clinical Research Laboratory that studies biological and behavioral aspects of substance abusers; and The Medicinal Chemistry Laboratory that studies new compounds used a molecular tools to modulate the activity of a variety of proteins-receptors in the brain. Another type of research organization and research focus can be found at the University of Pennsylvania, the Center for Studies of Addiction. Within this Center, five major research programs are funded: the Addiction Treatment and Medication Division; the Brain-Behavioral Vulnerabilities Laboratory, HIV/AIDS Prevention Research Division, Clinical Trials Network, Novel Interventions in Criminal Justice Populations Division; and the Continuing Care and Assessment Division.

Other groups that are not university-based also have received funding from NIDA such as the Research Triangle Institute (RTI) located in North Carolina and RAND located in California. The Center for Interdisciplinary Substance Abuse Research at RTI includes a range of research that is also funded by the NIAAA and other federal groups such as the Center for Substance Abuse Prevention. Projects within this center include: Transdisciplinary Behavioral Science; Substance Abuse Epidemiology, Prevention, and Risk, Substance Abuse Treatment Evaluations and Interventions, Tobacco Use, and Behavioral Health Economics. RAND does not have a center but has a program of drug abuse research focused on epidemiology, prevention, treatment and policy.

The other program of research is the intramural program at NIH. The mission of the intramural program is to conduct research on topics that are considered high risk. The NIH includes clinical centers to monitor approved diagnostic and therapeutic modalities. These “laboratories” and clinics also become training grounds for young researchers and post-doctorate fellows. In addition according to a 1988 report by the National Academy of Sciences the NIH intramural program activities “...include communicating research findings, developing policies on biomedical research priorities, and translating research findings into more effective medical care” (NAS, 1988, p. 2). NIDA’s intramural program, the Addiction Research Center (ARC), is located in East Baltimore (about 50 miles from the NIDA main offices). Today’s ARC continues the tradition of its roots at the Public Health Service Narcotic Hospital in Lexington, Kentucky. At the ARC’s 60th anniversary, the major achievements had been listed in the 1995 NIDA Notes (NIDA, 2005) as:

- Advancing the use of methadone to treat heroin addiction.

- Helping explain why so many addicted people undergo repeated relapses to drug abuse even after successful treatment.
- Demonstrating that drug dependence is not limited to opiates and extends to other drugs of abuse.
- Helping find and study multiple opioid receptors, the binding sites in the nervous system where heroin and other opiates unleash their effects.
- Recognizing the significance of opioid antagonists for opiate abuse treatment and research as well as developing an opioid antagonist as a lifesaving antidote for heroin overdoses.
- Developing abuse liability studies and criteria to help scientists determine whether new pharmaceutical products might bear potential for treating addiction and abuse.
- Profiling the physiological and psychological effects of classes of drugs-including sedatives, hypnotics, hallucinogens, and marijuana-to provide basic tools for continuing research on and evaluation of drugs.

Findings from NIDA-funded intra- and extramural research are shared through reports, journals, and books. Between 1975 and 1998, NIDA published a series of monographs that summarize research findings together in series of researcher-authored papers and to outline future needs in specific research areas (NIDA, 2006). After 1998 only the proceedings of the College on Problems of Drug Dependence have been published through this mechanism. Other period NIDA publications that summarize special research issues are NIDA Notes and special report series. These are available to the public at no cost. NIDA also sponsors research conferences and meetings that result in publications either by NIDA or through professional journals.

Professional conferences such as the American Psychological Association offer opportunities to present research findings on drug abuse. Annual conferences that are specific to drugs include the College on Problems of Drug Dependence, the Society for Prevention Research, American Academy of Addiction Psychiatry, American Foundation for AIDS Research and American Society for Addiction Medicine.

8 Key research topics and areas / trends 2000 – 2007

The NIH website contains information on grant applications that have received funding over the past several years including the name and affiliation of the principal investigator, the title and assigned number of the application, and the assigned Institute. This system is called the Computer Retrieved of Information on Scientific Projects (CRISP). The number of newly approved extramural research grants by year is presented in Table 3.

Table 3 Number of New Grant Awards Made in the Period 2000 through 2007

Year	Number of New Grant Awards
2000	368
2001	416
2002	358
2003	425
2004	378
2005	398
2006	370
2007	438

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The number of new research grants awarded each year is between 350 and 400 depending on the approved annual budget and the amount of continuing grants (one up to five years of funding is committed for each year from the allocated funding base). In some years the commitment to ongoing research does not allow funding of large number of research grants, particularly at times when the annual budget is decreased or stable. Table 4 summarizes the category of newly awarded extramural research funded for the period 2000-2007. This summary represents the first 250 of these grants within each year. Table 5 shows the titles of a sample of these grants to provide the reader some idea of the focus of the research. Over the time period, the largest proportion of the awards was for basic research while epidemiologic and treatment studies generally ranked second or third while policy-related research ranked last.

Table 4 Classification of New Grant Awards in the Period 2000 through 2007 (Percentage of 250 grants reviewed)

Classification	2000	2001	2002	2003	2004	2005	2006	2007
Basic	37.2	51.6	46.8	40.8	42.8	38.8	44.0	44.4
Epidemiology	24.8	17.2	11.6	20.8	18.8	20.8	15.6	20.8
Prevention	7.6	9.2	10.0	13.6	10.4	7.6	12.4	6.0
Treatment	19.6	14.8	22.4	18.4	24.0	23.6	18.8	16.0
Health	8.4	4.8	4.4	4.0	2.0	4.4	3.6	4.8
Education/Training	2.0	1.2	3.2	1.2	0.4	4.8	5.2	5.2
Policy-related	0.4	1.2	1.6	1.2	1.6	0.0	0.4	2.8

Table 5 Examples of New Research Grants by Title, 2000-2007

<p>Basic</p> <ul style="list-style-type: none">• Nicotine Withdrawal and Responses to Psychological Stress• Murine Model of Marijuana• Promoter Characterization of CART gene <p>Epidemiology</p> <ul style="list-style-type: none">• Substance use and Suicide• Non-Addicting Cannabinoid Use• Substance Use among Children of Hispanic School Dropouts <p>Prevention</p> <ul style="list-style-type: none">• Preventing Health Risking Behaviors in Delinquent Girls• Improving Interventions for Drug Abuse-Related Violence• Early Risers (Intervention Program) Multi-Site Implementation Study <p>Treatment</p> <ul style="list-style-type: none">• Brief Interventions for Nicotine and Cannabis Use• An Affect Management Intervention for Juvenile Offenders• Computerized ASA Follow-up Outcome System <p>Health</p> <ul style="list-style-type: none">• Time-to-event Analysis of Drug-Related Health Outcomes• Effects of Sustained Opiates on Bone Metastasis and Pain• Prenatal Marijuana Exposure: Long-Term Outcomes <p>Education/Training</p> <ul style="list-style-type: none">• Psychiatric Research Education and Training in Drug Abuse• Research Titles Examples for Table 3 (continued):• Knowledge Exchange and Skills Training for Therapists• Drug Abuse Education for Professionals <p>Policy-Related</p> <ul style="list-style-type: none">• Are There Economic Costs of Marijuana Use?• Genetics of Nicotine Addiction—Examination of Ethics and Policy• Economic Costs of Drug Use and Abuse
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C Evaluation

9 Major research collaboration in the drug field with EU partners

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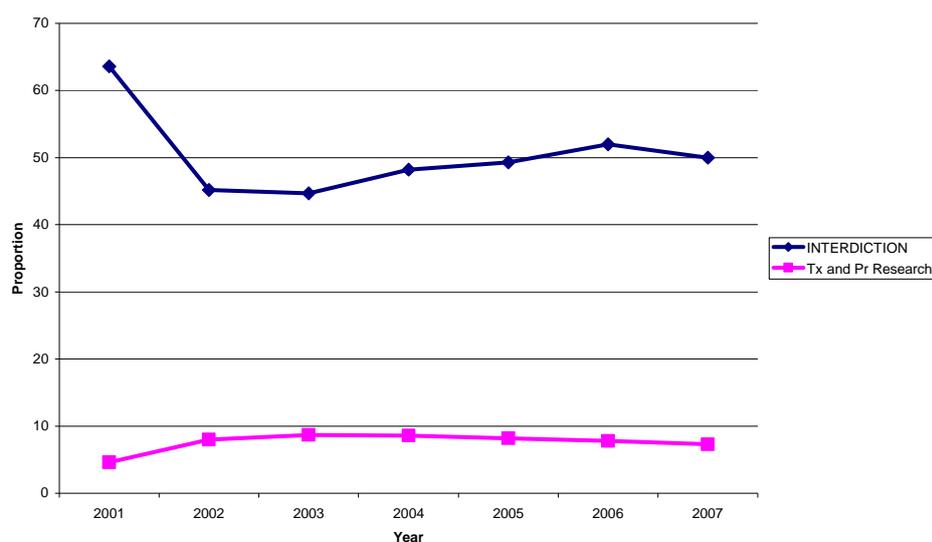
10 Evaluation of the country situation by the author³

Based on the U.S. experience, three overarching observations seem evident. The first is that ideology about drug abuse as a phenomenon rather than science drives how drug abuse research is funded. The second observation is that future planning for a drug abuse agenda should be an international effort. Finally, the research agenda should be broad and responsive to emergent new drug use trends.

10.1 Stigma and Ideology

Over the past thirty years, support for drug abuse research has grown as reflected by NIDA's growing budget from \$39 million in 1974⁴ to \$1 billion in the past fiscal year (Musto, 1996). Reviews of progress in understanding abuse liability and drug dependence/addiction, vulnerability and risk and effective prevention and treatment indicate the success of the national program of supported research to date. Yet ideology still drives funding for drug abuse. The ratio of federal funding for research versus interdiction and law enforcement remains a concern. Over the period 2001 through 2007 while funding for interdiction increases the funding for treatment and prevention research had risen slightly and then began declining in 2003 (Figure 6). A recent visit to the website for the Office of National Drug Control Policy (September 17, 2007) reveal no link to NIDA and a recently developed document: What Works: Effective Public Health Responses to Drug Abuse fails to include prevention or treatment programming with demonstrated effectiveness. In fact the following statement closes the booklet: "Through hard experience, we have learned much about the nature of addiction and what works in prevention and treatment". No mention of research!

Figure 6: Proportions of federal budget allocated to interdiction and treatment and prevention research, 2001-2007



³ The statements in this section represent the views of the author only and not of any groups or institutions with which the author is affiliated.

⁴ This budget included funds for services as well as for national monitoring systems such as the Household Survey on Drug Abuse and the Drug Abuse Warning Network.

Much of the ideology attached to drug abuse and therefore to drug abuse research is driven by not understanding the biological mechanisms and processes associated with initiating the use of drugs and then abusing and becoming dependent on drugs. The movement of NIDA to the NIH, renown for medical research, gave recognition that drug abuse has a biological basis and warrants rigorous investigation. In many ways the movement has “legitimized” the field and dissipated much of the stigma experienced by drug abuse researchers by their same-disciplined colleagues. The integrated review processes also gave drug abuse researchers the opportunity to “educate” other scientists about the rigor associated with studies of the phenomenon of drug abuse.

However, the stigma associated with drug abuse and drug abusers remains in the U.S. population and professional groups such as physicians. Recognition of the nature of drug abuse as a chronic health problem that can be treated by health care professionals would begin to alter attitudes towards victims of drug abuse (Wheeler and Nahra, 2000). The National Center for Addiction and Substance Abuse at Columbia University (CASA) conducted a survey in 2000 of primary care doctors to determine how they deal with substance abusing patients. The survey indicated that 94 percent of physicians failed to diagnose substance abuse when presented with a description of early symptoms of alcohol abuse in an adult patient and 41 percent of pediatricians failed to diagnose illegal drug abuse in a description of a drug-using adolescent. Both groups failed to suggest substance abuse as one of five possible diagnoses. Furthermore, the survey indicated that only about 20 percent of physicians believed they were ‘very prepared’ to diagnose alcoholism, 17 percent illegal drug use and 30 percent, prescription drug misuse. However, when asked about hypertension, diabetes and even depression, 83 percent, 82 percent and 44 percent, respectively, of these same physicians believed they were ‘very prepared’ to make a diagnosis. Discrepancies in perceptions of treatment effectiveness were also present with between 42 percent (for depression) and 86 percent (for hypertension) of physicians reporting that treatment was very effective while for smoking, 8 percent believed treatment was ‘very effective’, 4 percent for alcoholism and 2 percent for illegal drug abuse. Reasons given for physicians’ lack of confidence in their ability to diagnose or effectively treat substance abuse were: lack of adequate training; their own skepticism about treatment effectiveness; and their perceptions about patient resistance to discussing these health issues. The CASA report recommends that physicians receive increased training on substance abuse in medical schools, residency programs and continuing education; that coverage for substance abuse treatment services be expanded (National Center on Addiction and Substance Abuse, 2000). The education of health care workers in general is important. In addition, efforts through the media, as well as through funding and programming support, needs to alter tolerance for use or perception of risk associated with the use of drugs as these perceptions are related to drug use.

10.2 International Research Agenda

Within the past fifteen years the globalization of drug abuse has become increasingly recognized. Although once considered “the American Disease” (coined by David Musto, 1987 primarily for narcotics use) epidemiologic studies conducted in countries throughout Europe, North and South America, Asia and Africa have demonstrated that the abuse of drugs is endemic (Sloboda, 2003). The ubiquity of drug abuse warrants an international research agenda whereby the research questions/hypotheses being addressed and how and by whom they are investigated is shared. The current means for such sharing are through professional journals and meetings. In many cases ongoing work or interesting by ambiguous or negative findings are rarely shared. The uneven structures to support research and the variation in funding for research whether through private or governmental organizations has led to duplication of and misspent efforts (even though replication is a hallmark of science). The internet provides the opportunity for these exchanges.

10.3 Broad Range of Research

Although the focus of this paper has been primarily on investigator initiated and conducted research, any national research program on a health or social issue should be comprehensive and include at a minimum the following:

- ongoing monitoring systems that reflect national and local trends in drug abuse within the general (e.g., located through households, workplaces and schools) and specific populations (e.g., located through the military, treatment programs, prevention programs, and criminal justice system)
- investigative or SWAT-like (Special Weapons and Tactics) teams to investigate emergent patterns of drug use (Sloboda et al., 2005) and report to the research, prevention, treatment and policy communities about potential for spread
- basic biologic and behavioral research
- evaluation research examining not only to determine the outcomes from interventions but also to identify for whom the intervention was most and least effective and why
- translational research, i.e., taking intervention research to scale from efficacy to effectiveness to large scale population studies
- policy-related research particularly focused on costs

10.4 Recommendations

Recommendations that emerge from a review of U.S. experience for structuring drug abuse research at a national level fall into three general areas; the development of strategic research plans, funding and review.

10.4.1 Strategic research plans

With the creation of NIDA during the Vietnam War came recognition that drug abuse was a national issue warranting its own organization. Initially this organization consisted of three major thrusts: monitoring systems such as period national surveys of the general and school populations and treatment episodes, an investigator-driven intra- and extramural research program, and a service delivery program. This organization provided a structure to link research to practice. However, tensions between research and service constituencies led to a separation of the monitoring and service programs from research with the creation of the Centers for Substance Abuse Prevention and Treatment. These Centers' research role was limited and highly minimized as NIDA was seen as the primary research-focused agency. The linkage of research and service has been weakened and the removal of the monitoring systems has removed the framework that coalesced research and practice. Within this context, the following recommendations are made:

- the development of a framework that summarizes what is known (research with replicated findings if possible) and what questions remain to be explored
- the plan should have a public health mission and not limited to the advancement of science alone
- within this framework, areas of needed research should be prioritized
- whenever possible the research plan should foster transdisciplinary approaches to address specific research questions
- the plan should include training of new drug abuse researchers recruited from secondary schools and universities as well as from senior scientists from related disciplines
- the plan should be developed with formalized input from a broad array of groups not only representing the research community but also practitioners, service providers, and policy makers and should reflect current epidemiologic trends at the national and local levels

- there should be a clear linkage between the areas of research: epidemiology, basic research, prevention and treatment
- formalized review of the research findings and the plan should be made on a regular periodic basis

10.4.2 Funding

Funding for drug abuse research in the U.S. falls primarily to NIDA. As mentioned above the research functions of the Centers for Substance Abuse Treatment and Prevention are limited by the legislation that gave them authorization. The Center for Disease Control and Prevention is primarily a public health agency connected through state health systems with a limited external research function. Foundations also vary in their contributions to drug abuse research and these sources for funding have been sporadic over time. In order to accumulate knowledge incrementally over time and to interest and retain strong investigators requires stable funding. The following recommendations are therefore made:

- funding for research should be stable over long periods of time
- rather than providing funding only on an annual basis, longer term funding should be provided with annual augmentations made reflecting a review of research progress
- researchers should be encouraged from a variety of settings and should not be limited to universities or research institutes but also could come from providers and other agencies as long as the researchers have the appropriate credentials and organizational support to conduct rigorous research
- whether the funding comes through foundations or governmental agencies, the research plan and the plan's monitoring should be overseen by an advisory group composed of research scientists, drug abuse service providers, and policy makers with an interest in drug abuse who are designated by professional groups within a country and who are accountable to the community and the professional groups that appointed them

10.4.3 Review

The experience of the NIH in soliciting, receiving and reviewing research grant applications is one to emulate and build upon to assure the most rigorous research is funded and carried out. NIH continues to improve these processes. To emphasize this point, an email was just sent out to researchers (September 17, 2008) with plans to enhance the review process over the next few years. These are presented in Appendix C.

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APPENDIX A

Suggested Criteria for Initiation of Center Programs

Both Center Infrastructure (Core-Type) and Research Center Programs Should Meet the Following Criteria.

Importance of the problem: Is the area of research important enough to warrant a concentration of resources?	The area of research has been declared a high priority by the institute in its planning process.	The area of research is a lower priority for the institute.
Need for core resources: Do shared resources in this area provide economies of scale?	The area of research relies heavily on specialized resources not provided in normal university services but difficult to include in research project or program project (i.e., R01 or P01) budgets.	The area of research can proceed with standard university services, or individual investigators can access the services cost-effectively.

Center Infrastructure (Core-Type) Programs Should Meet the Following Additional Criteria.

Concentrations of projects: Do enough investigators at one university or in close proximity already have funded projects in this area?	The proposed program or award can justify in detail that there are enough users for the shared services.	The number of documented potential users is well below the capacity of the proposed shared resources.
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Research Center Programs Should Meet the Following Additional Criteria.

Sufficient number of investigators: Are there enough people working in the field to support the level of effort proposed?	There are, or potentially are, plenty of strong investigators in the area, so that there will be real competition for the center awards.	There are few investigators, or little potential for more investigators working in development with noncenter grants.
Need for strategic focus: Does this research area need some coordination among projects to build toward or accelerate important findings?	Scattered findings from a number of research groups are leaving critical gaps in the knowledge base. These groups need to articulate a larger-scale, more coordinated research program to make or accelerate progress.	Individual grants or P01s are already moving the field forward rapidly based on shared understanding of the critical methods and problems.
Need for interdisciplinary interaction: Would the research problem benefit from an interdisciplinary approach that is not happening now?	Current grant-supported research is largely single-discipline, and credible, independent advisors recommend an interdisciplinary approach.	Current R01 and P01 research is already interdisciplinary.
Need to identify research problems with translational potential: Does the clinical community perceive that their problems are not being addressed?	The clinical or other practice community can provide a significant body of questions that research could address to help them solve problems but is not currently producing. The list of questions should be articulated, and the match against existing knowledge should be documented with a literature search.	The clinical or other practice community is already absorbing a high level of research knowledge and has significant influence on the research agenda of basic research related to the problem.
Need to stimulate translational activities: Does the basic science community perceive that their findings are not being taken up?	There is a large body of knowledge that is not being translated into clinical or public health practice. The program should be able to quantify the size of that body of knowledge with publications.	Basic research related to the problem is already being fully utilized in clinical research, drug development, clinical practice, or public health.
Need to provide distinctive training environments	Researchers trained in existing modes in the field are being prepared too narrowly to meet the challenges of problem solving in this area, or are missing critical skills.	Existing training is giving Ph.D.s and physicians the key skills and knowledge they need for their career paths.

APPENDIX B

Listing of Requests for Proposals (RFA) and Program Announcements (PA for NIDA, 2005 through 2007 (Establishing Priorities for Research)

FY 2005 RFAs

Psychopharmacology, Neuroscience, and Basic Research

- Strategic Program for Innovative Research on Drug Addiction Pharmacotherapy
- Neurobiology of Behavioral Treatment: Recovery of Brain Structure and Function
- Secondary Analysis of the NESARC and NSPY Datasets
- Interagency Opportunities in Multi-Scale Modeling in Biomedical, Biological, and Behavioral Systems
- Completion of a Comprehensive Mouse Knockout Resource
- Lapse or Relapse to Drug Abuse and Other Chronic Conditions

Epidemiology and Etiology

N/A

Prevention

N/A

Treatment

- The National Drug Abuse Treatment Clinical Trials Network

Health and Health Conditions

- HIV and Drug Abuse Interventions among Pregnant Women in Drug Abuse Treatment
- Consequences of Drug Abuse and Alcohol Exposure on Brain and Behavioral Development

International

N/A

FY 2006 RFAs

Psychopharmacology, Neuroscience, and Basic Research

- Training in Neuroimaging: Integrating First Principles and Applications (NIH Blueprint for Neuroscience Research)
- Training in Computational Neuroscience: From Biology to Model and Back Again (NIH Blueprint for Neuroscience Research)
- Course Development in the Neurobiology of Disease
- Development and Improvement of Inbred ES Cell Lines for Use in Generation of Mouse Mutants
- Training in Translational Research in Neurobiology of Disease
- Epigenetics of Neurobiology and Addiction
- Exploratory/Developmental Centers for Translational Research on the Clinical Neurobiology of Drug Addiction
- Prescription Opioid Use and Abuse in the Treatment of Pain
- Social Neuroscience
- Pilot Clinical Trials of Pharmacotherapies for Substance Related Disorders

Epidemiology and Etiology

N/A

Prevention

- Enhancing Practice Improvement in Community-Based Care for Prevention and Treatment of Drug Abuse or Co-occurring Drug Abuse and Mental Disorders

Treatment

- Enhancing Practice Improvement in Community-Based Care for Prevention and Treatment of Drug Abuse or Co-occurring Drug Abuse and Mental Disorders

Health and Health Conditions

N/A

International

N/A

FY 2007 RFAs**Psychopharmacology, Neuroscience, and Basic Research**

- Extinction and Pharmacotherapies for Drug Addiction
- Development of Immunotherapeutic Products for the Treatment of Methamphetamine Addiction
- Mechanisms of Drug Abuse Interactions with HIV Neuropathogenesis
- The Genes, Environment, and Development Initiative
- Brain Imaging Drug Use Prevention Messages
- Design, Synthesis, and Preclinical Testing of Potential Treatment Agents for Drug Addiction

Epidemiology and Etiology

Joint NIDA-NIJ Initiative for Research on Retail Drug Markets

Prevention

N/A

Treatment

N/A

Health and Health Conditions

- Field-Deployable Tools for Quantifying Exposures to Psychosocial Stress and to Addictive Substances for Studies of Health and Disease

International

N/A

Calendar Year 2004 PAs**Psychopharmacology, Neuroscience, and Basic Research**

- Pharmacotherapy for Comorbid Alcohol and Drug Use Disorders
- Psychopharmacology of Widely Available Psychoactive Natural Products
- Prescription Drug Abuse
- Novel Approaches to Enhance Animal Stem Cell Research

Country Report – United States of America**Zili Sloboda**

- MDMA: Research Areas Needing More Emphasis
- HIV Infection of the Central Nervous System
- Research on Mind-Body Interactions and Health

Epidemiology and Etiology

- Research on Rural Mental Health and Drug Abuse Disorders
- Epidemiology of Drug Abuse
- Prescription Drug Abuse
- Understanding Mechanisms of Health Risk Behavior Change in Children and Adolescents
- MDMA: Research Areas Needing More Emphasis

Prevention

- Prescription Drug Abuse
- MDMA: Research Areas Needing More Emphasis
- Community Participation in Research

Treatment

- Collaborative Clinical Trials in Drug Abuse
- Prescription Drug Abuse
- MDMA: Research Areas Needing More Emphasis
- The Effect of Racial and Ethnic Discrimination/Bias on Health Care Delivery
- Decision Making in Health: Behavior Maintenance
- Community Participation in Research

Health and Health Conditions

- Health Disparities Among Minority and Underserved Women
- Co-Occurring Mental Illness, Alcohol and/or Drug Abuse and Medical Conditions
- Social and Cultural Dimensions of Health

International

N/A

Calendar Year 2005 PAS**Psychopharmacology, Neuroscience, and Basic Research**

- Innovations in Biomedical Computational Science and Technology Initiative
- Imaging - Science Track Award for Research Transition
- Design, Synthesis, and Preclinical Testing of Potential Treatment Agents for Drug Addiction
- Small Business Innovation Research to Improve the Chemistry and Targeted Delivery of RNAi Molecules
- Bioengineering Nanotechnology Initiative
- Development of PET and SPECT Ligands for Brain Imaging
- Short-Term Courses In Human Embryonic Stem Cell Culture Techniques
- Inhalant Abuse: Supporting Broad-Based Research Approaches
- Interactions Between Stem and Progenitor Cells and the Microenvironment In Vivo
- Non-Human Lentiviral Models of the Neurological Complications of AIDS
- Collaborative Multisite Research in Addiction (COMRAD)
- Functional Links between the Immune System, Brain Function and Behavior
- Research on Sleep and Sleep Disorders

Epidemiology and Etiology

- Research on Pathways Linking Environments, Behaviors and HIV/AIDS
- Parenting Capacities and Health Outcomes in Youths and Adolescents
- Non-injection Drug Abuse and HIV/AIDS
- Inhalant Abuse: Supporting Broad-Based Research Approaches
- Methodology and Measurement in the Behavioral and Social Sciences
- Collaborative Multisite Research in Addiction (COMRAD)

Prevention

- Parenting Capacities and Health Outcomes in Youths and Adolescents
- Dissemination and Implementation Research in Health
- Health Services Research on the Prevention and Treatment of Drug and Alcohol Abuse
- Drug Abuse Prevention Intervention Research
- Economics of Prevention and Treatment Services for Drug and Alcohol Abuse
- Inhalant Abuse: Supporting Broad-Based Research Approaches
- Methodology and Measurement in the Behavioral and Social Sciences

Treatment

- Design, Synthesis, and Preclinical Testing of Potential Treatment Agents for Drug Addiction
- Dissemination and Implementation Research in Health
- Health Services Research on the Prevention and Treatment of Drug and Alcohol Abuse
- Economics of Prevention and Treatment Services for Drug and Alcohol Abuse
- Inhalant Abuse: Supporting Broad-Based Research Approaches
- Complementary and Alternative Medicine for Substance and Alcohol Related Disorders
- Methodology and Measurement in the Behavioral and Social Sciences
- Collaborative Multisite Research in Addiction (COMRAD)

Health and Health Conditions

- Research on Pathways Linking Environments, Behaviors and HIV/AIDS
- Research on Social Work Practice and Concepts in Health
- Dissemination and Implementation Research in Health
- Drug Abuse as a Cause, Correlate, or Consequence of Criminal Justice Related Health Disparities among African Americans
- Health Disparities in HIV/AIDS: Focus on African Americans
- Non-injection Drug Abuse and HIV/AIDS
- Recent HIV Infection: New Prevention Challenges and Opportunities

International

- International Research Collaboration on Drug Addiction
- AIDS International Training and Research Program
- Brain Disorders in the Developing World: Research Across the Lifespan
- Global Research Initiative Program, Social Science
- International Research Collaboration – Basic Biomedical

Calendar 2006 Pas**Psychopharmacology, Neuroscience, and Basic Research**

- Characterization, Behavior and Plasticity of Pluripotent Stem Cells
- Interactions Between Stem and Progenitor Cells and the Microenvironment in Vivo
- Functional Genetics And Genomics Of Drug Addiction

Country Report – United States of America**Zili Sloboda**

- Gene Discovery for Complex Neurological and Neurobehavioral Disorders
- Interactions Between Stem and Progenitor Cells and the Microenvironment
- The Development of Frontal Cortex and Limbic System and Their Roles in Drug Abuse or Mental Health
- Mechanisms of Alcohol and Drug-Induced Pancreatitis
- Molecular genetics of drug addiction and related co-morbidities
- Developmental Psychopharmacology
- Drug Discovery for Nervous System Disorders
- Basic and Translational Research in Emotion
- Mechanisms, Models, Measurement, and Management in Pain Research
- Development and Application of PET and SPECT Imaging Ligands as Biomarkers for Drug Discovery and for Pathophysiological Studies of CNS Disorders
- NIDA Research Education Grants in Drug Abuse and Addiction
- Testing Tobacco Products Promoted to Reduce Harm
- Neurotechnology Research, Development, and Enhancement
- The Science and Ecology of Early Development

Epidemiology and Etiology

- HIV/AIDS, Severe Mental Illness And Homelessness
- Risk Factors For Psychopathology Using Existing Data Sets
- NIDA Research Education Grants in Drug Abuse and Addiction
- The Science and Ecology of Early Development

Prevention

- Research on the Reduction and Prevention of Suicidality
- NIDA Research Education Grants in Drug Abuse and Addiction

Treatment

- National Cooperative Drug Discovery Groups for the Treatment of Mental Disorders, Drug or Alcohol Addiction
- Behavioral & Integrative Treatment Development Program
- HIV/AIDS, Severe Mental Illness And Homelessness
- Health Services Research on Practice Improvement Utilizing Community Treatment Programs within the National Drug Abuse Clinical Trials Network
- Therapeutics Development for HIV/AIDS-Associated Neuropsychological Disorders
- NIDA Research Education Grants in Drug Abuse and Addiction

Health and Health Conditions

- The Effect of Racial and Ethnic Discrimination/Bias on Healthcare Delivery
- Mechanisms of Alcohol and Drug-Induced Pancreatitis
- Women's Mental Health in Pregnancy and the Postpartum Period
- Preclinical Therapeutics Development for NeuroAIDS
- Therapeutics Development for HIV/AIDS-Associated Neuropsychological Disorders
- New Technologies for Liver Disease
- Research on Ethical Issues in Human Subjects Research
- Health Research with Diverse Populations
- Understanding and Promoting Health Literacy

International

N/A

Situation of drug related research in Canada
Drug Abuse Research in Canada: Structure, Funding, Progress

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1 Abstract

Funding for health research in Canada – including addiction research – from the primary federal funding sources had reached a quantitative low-point at the end of the 1990s, and mostly supported bio-behavioral research. Following a quite fundamental turn of events, the state of health research in Canada over the past decade has dramatically improved with the establishment of the Canadian Institutes of Health Research (CIHR) as Canada's primary health research funding agency, along with several other relevant federal entities for direct and indirect health research support and substantially elevated levels of funding since 2000. These sources are complemented by a number of – with a couple of exceptions, mainly smaller - provincial health research funding agencies as well as some other funding entities. In addition, a considerable dependence on US funding has traditionally existed and continues to be present. The Canadian system of health research funding relies primarily on investigator-driven proposals and projects, i.e. is subject to extrinsic or strategic direction only to a limited degree. While the amount of research funds available, capacity development efforts and publications output in the field of addiction research have substantially increased since 2000 – and on the federal level, specifically under the CIHR roof, may have expanded somewhat too fast - the area is handicapped by the fact that within the CIHR system, the topic of 'addiction' is subsumed within the Institute of Neuroscience, Mental Health and Addictions (INMHA), where it plays a somewhat subordinated role and is limited in terms of strategic development or support opportunities. Traditionally, the bulk of research funding for addictions research - as is the case for health research funded by CIHR overall – has been committed to the areas of bio-behavioral ('basic') research. However, in recent years, the relative amount of funding devoted to other areas (e.g., social science/population health) of research has grown. Overall, the addiction research landscape in Canada is limited in the coordination of content between different funding levels and institutions and somewhat fragmented in its activities. The future of health or addiction research funding in Canada is difficult to predict. The major increases in funding seen through the first part of the current decade, i.e. 2000 – 2005, have evidently come to an end; the future picture to a fundamental degree will depend on the wider context of social, economic and political developments.

2 History of strategic development and vision behind the development of research capacity and funding infrastructure

In the mid- to the late 1990s, the state of funding for health research in Canada had been deteriorating considerably. The key health research funding agency at the time, the federal **Medical Research Council (MRC)**, had to take substantial budget reductions in the wake of general public expenditure cuts. The MRC's budget was reduced by 13% from 1994 to 1998 alone, to a total funding amount of \$237.5 million dollars in 1998. This funding amount was recognized as being considerably lower than funding amounts devoted to health research in Australia or the United Kingdom, and massively lower than that available in the United States (Single et al. 2000). In fact, at the time substantially more health research funding came to the support of Canadian health researchers from US sources than the total funding amount available domestically. Furthermore, the MRC's funding support was largely devoted to biomedical research as its 'principal forte' (MRC, 1997), and rarely funded research outside of this realm. Federal politicians increasingly recognized this situation as untenable, especially when the federal government managed to balance its annual budget at the turn of the century and had the fiscal opportunity for additional public spending. In this context, the (Liberal Party) federal government created the **Canadian Institutes of Health Research (CIHR)**; see <http://www.cihr.ca/e/7263.html>) in June 2000 as a pivotally important event in the evolution and state of health research funding in present and future Canada.

The principal objectives of CIHR were to facilitate scientific excellence in health research and capacity development and to provide a substantially higher and sustained funding level. It also aimed to create a support framework of health research reaching beyond the boundaries of mainly biomedical research, partly in recognition of the importance of the social determinants of health and population health principles in the health status of Canadians, as well as incorporating clinical and health systems research as key domains. The CIHR is the centerpiece of domestic public funding for health – and thus addiction or illicit drug use – research in Canada. CIHR has seen a substantial increase in its budget between its creation in 2000 and its most recent budget (2008; see figures below), although budget increases have strongly plateau-ed since 2005, partly determined by a new (Conservative) government in office since 2006. Overall, these developments have led to an unprecedented net increase in research operations and capacity development funding for health and addictions research in Canada since 2000.

CIHR was created around 13 ‘virtual institutes’ representing different health research topics; the institutes have a limited amount of funds for targeted strategic research initiatives within areas of their topical mandate. Addiction research in this model is subsumed under the CIHR ‘Institute of Neurosciences, Mental Health and Addictions’ (INMHA; see <http://www.cihr.ca/e/8602.html>). Importantly, the vast majority of health research funding in the CIHR model is made available for investigator-driven research, i.e. for research projects defined by and coming from the research community and adjudicated on the basis of their scientific merit by peer-review. As such, health research in general, and addiction research more specifically, in the Canadian funding landscape is less planned or directed in terms of its foci, yet really reflects the capacities, interests and priorities of its active researchers.

Health research in Canada is however not limited to CIHR. The past decade has seen the establishment or fiscal expansion – again in the wider context of federal budget surpluses and some considerable investments in research capacity – of several other research funding entities on the federal level which are of importance to health/addiction research capacity (see below). In addition, there are sources other than federal agencies for health research funding in Canada. For example, a number of Canada’s provinces have been, or have become, home to provincial health research funding agencies which, while at a smaller scale than federal agencies, provide operational and capacity development support for health research, including addictions. Most of these agencies have also seen overall increases in funding since 2000, yet are also largely operating on the basis of investigator-driven proposals. At the same time, even in light of the considerable health research funding increases from the federal level, it has to be noted that Canadian researchers in the fields of addiction and drug abuse still draw a substantial amount of money from US sources, largely facilitated by the fact that total and per capita funding resources for health research in the US are on a dramatically higher scale than in Canada.

3 Future strategic approaches aimed at building research capacity and research funding infrastructure

There is relatively little that can be said concretely about the near or distant future of health or addiction research funding in Canada, except for that the period of substantial funding increases experienced roughly 2000 – 2005 has definitely come to an end. The critical question is what will follow. The new Conservative government has allotted CIHR only nominal increases in its budgets since 2006; these developments must also be understood in the wider context of the Canadian economy having weakened considerably in the past couple of years, and budget surpluses – giving the opportunity for discretionary spending increases in select areas, including research support funds – are expected to come to an end. The funding for key federal funding programs (e.g., the Canada Research Chairs or Canada Foundation for Innovation program, see descriptions below) – seen by many as

Country Report – Canada**Benedikt Fischer**

political creations of the previous government – may or may not be renewed by the government of the day when these decisions are to be made in the future.

At the same time, the current federal government's recent "Science and Technology Blueprint" (see Government of Canada 2007) has laid out a "new approach" and philosophy to research (including health), suggesting that wellbeing, health and quality of life centres primarily in economic strength and sustainability, and therefore requires "productivity and competitiveness through innovation ... [towards] world-class levels of scientific and technological excellence" (p.8ff). While identifying "health and related life sciences and technologies" as a priority area for knowledge development, the above view has been interpreted as a clear emphasis on federal support of research and development that can be expected to directly translate into economic value or benefit (e.g., are "commercializable") by way of an "entrepreneurial advantage", yet also the expectation for a much stronger private sector involvement (e.g., through funding partnerships) in research. The Blueprint states: "Partnerships are essential to lever Canadian efforts into world-class successes and to accelerate the pace of discovery and commercialization in Canada". This idea is, for example, concretely expressed in the creation of the 'Networks of Centres of Excellence Program' as well as "large scale research and commercialization centres" funded by federal monies, yet identified and led by the private sector (p.13). In this context, it is furthermore stated that the federal government "will enhance value for money, accountability, and the responsiveness of Canada's three granting councils by strengthening their governance and consolidating, integrating and aligning their programs that support academic research" (p.14). While most of this currently rests in the realm of speculation, these principles may mean a gradual shift of a largely independent and investigator-driven health research funding environment to a framework that is more selective and directive towards the values and ideals (e.g., commercializability) promoted by the current federal government. It has been seen as one possible step in this direction that the federal government proposed the reconfiguration of the senior governance structure of CIHR to be more accountable to – and, as some suggest, more directable by - the government.

A Funding structure

4 Funding agencies and research budgets

The below presents a brief overview of different funding agencies existent in Canada providing direct (e.g., operations) or indirect (e.g., infrastructure) funding support for health and other research fields, and hence relevant for addiction research. It needs to be noted that a categorical separation and accounting of funding for 'illicit drug' research from funding for other addictions (e.g., alcohol, tobacco or even gambling) is hardly – if at all – possible given the nature and the limitations of the available data (e.g., funding agencies' databases) which do not allow for such divisions and typically lump 'addictions' related funding opportunities and investments together under one umbrella if separated out at all. More specific distinctions are made where possible.

4.1 Federal funding agencies

Canadian Institutes of Health Research (CIHR) >www.cihr.ca<

On 07 June 2000, the Government of Canada created the Canadian Institutes of Health Research (CIHR) as Canada's principal health research funding agency. CIHR was established as the successor institution to the previous Medical Research Council (MRC). Besides different organizational structures and better funding resources, a main difference was that CIHR was to encompass a much broader and 'multidisciplinary' approach to health research, to be embodied in the 'four pillars' of biomedical; clinical; health systems and population/public health research (whereas the MRC was largely limited to the former two areas). CIHR is led by its President and CEO and its Governing Council, a voluntary body of 20 that oversees its operations. CIHR consists of 13 'virtual institutes' devoted to a specific substantive of health research (see www.cihr.ca for a list of the Institutes); these institutes are each run by a scientific director and co-governed by their own Institute Advisory Boards (IAB). Notably, CIHR's operating budget increased from its initial level of \$289 million (1999/2000; corresponds to ~ \$9.63 per capita) to \$844 million in 2006/07 (~ \$26.70 p.c.). In other words, the total amount of health research funding disbursed by CIHR almost tripled within a period of little over half a decade. Upon its creation, it was requested and expected by CIHR's leaders that its budget would be increased to roughly \$1 billion by now, yet after initial substantive budget increases, subsequent budget increases were considerably smaller than expected.

CIHR suggests that more than 90% of the funding it receives goes directly to fund Canadian health researchers. Most important in terms of its funding structures, the clear majority (about 70%) of CIHR's funding is investigator-driven and adjudicated in so-called 'open competitions', while about 30% of funds are set aside for strategic initiatives, i.e. defined thematic funding areas, most of which are defined by CIHR Institutes. The open competitions are administered by 'CIHR central', i.e. not influenced by the CIHR Institutes. These strategic initiatives are typically developed and led by one or more of the CIHR Institutes in relation to their specific topic areas, for which they have (limited) budgets. This means that in terms of the discretionary funding they have available and control, the Institutes only play a minor role in determining the scope or content of research being done with CIHR funding, as these decisions are adjudicated through the open competitions. At the same time, most of the strategic competitions are initiated and controlled by CIHR Institutes, where more proactive and direct influence over the foci and content of research is exercised from the end of the Institutes. Currently, CIHR supports about 11,000 researchers and trainees. The average annual budget size of regular research operating grants has grown from \$71,000 under the old MRC to \$111,000 under CIHR in 2005/06.

Throughout most of its existence, health research funded by CIHR has been dominated by biomedical research. This research pillar absorbs about 70% of the research funding dispersed by CIHR, and hence about double that of the three remaining pillars combined. CIHR provides funding support for health research through a number of different key funding vehicles – all of which are adjudicated by peer-review – specifically consisting of: I) operating grants; clinical trials grants; team and emerging team grants; catalyst grants: these funding vehicles provide funds primarily for research operations, i.e. the conduct of research projects at different stages and at different levels of complexity; regular operating grants, including clinical trials, typically focus on one major research question or topic, whereas team grants typically focus on several research questions or projects organized around a unifying problem or theme; catalyst grants are a form of exploratory or development grant for preliminary investigations ideally leading to full-blown research grants; II) training grants; these funding programs are submitted and organized in the form of team grants by groups of investigators yet are mainly designed to provide funds primarily for research training activities and funding support for graduate and post-graduate and clinical fellows, typically organized by the investigator team around a specific health research theme; III) research chairs; personnel (e.g., investigator or clinician/scientist) salary awards or fellowships: these awards provide salary support for time-limited terms to researchers or investigators at different levels; in concrete cases, this may mean buyout from teaching obligations for university faculty so that they can devote the majority of their time on research; trainee (e.g., Master's or PhD level) awards: these funding programs provide training support for periods of one to three years based on individual applications; IV) meeting, planning and dissemination grants; travel and other grants (self-explanatory). More than 1 in 5 funding support dollars are dispersed through category I) funding vehicles. Most of these vehicles – except for operating grants - are used or sponsored by special funding initiatives, i.e. to support specific topical areas of interest linked to one or more of the CIHR Institutes.

The relevant Institute within CIHR for funding of research related to 'illicit drugs' or addiction more generally is the Institute for Neuroscience, Mental Health and Addictions (INMHA). When CIHR's map of Institutes was developed in the year 2000, a small group of leading Canadian addictions researchers and policy-makers (Single et al. 2000) wrote an elaborate proposal making the case to establish a stand-alone Institute for Addictions Research at CIHR – similar to National Institute on Drug Abuse (NIDA) within the National Institutes of Health (NIH) in the US - and pleading against a lumping together of addictions with other areas of disease (especially mental health). The proposal cited that Canada had once been a world leader in several key areas of addictions research yet had lost that status to a considerable degree, and that addiction research funding in Canada – compared to its impact on disease burden as well as compared to funding levels in other countries – was substantially below minimal levels. Specifically, it was suggested that addiction research funding levels in Australia were at twice the level, and 30 times higher in the US compared to Canada on a per capita basis in the mid-1990s. The proposal furthermore suggested that "in 1998/99, the US government awarded six times as much money to support addictions research in Canada as did the Canadian government" (Single et al. 1999); in other words there was considerably more funding given to Canadian researchers from south of the border (e.g., through NIH) than came from domestic funding sources. Evidently, the call for a separate addictions institute was not successful.

The INMHA – in terms of its Institute budget - is one of the largest or 'richest' CIHR Institutes, meaning that it has a relatively large budget compared to other CIHR Institutes to support special/strategic initiatives in its mandate areas. However, it is furthermore evident by the Institute's title – in which 'addiction' against alphabetical convention is placed last – that the entity covers large and diverse grounds, of which addiction research is often considered to be an area of more minor importance. Strategic research initiatives in addictions under the INMHA's auspices are typically developed on the basis of active input

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from the Institutes Advisory Board (IAB), and formally or informally informed by the relevant 'research community'; this input is sometimes generated by research development workshops, etc. Strategic funding initiatives are typically offered in partnership with other CIHR Institutes, domestic public or not-for-profit organizations at many levels or even outside of Canada, industry/private sector etc. The INMHA's two strategic plans to date include three strategic initiatives related to addiction: 1) First episode events in neurological and mental illnesses and addiction; 2) nicotine addiction and tobacco abuse; 3) addiction and cross addiction. These strategic priorities have been translated into various strategic requests for funding applications, utilizing a variety of funding vehicles (see also above).

CIHR/INMHA funding for 'addictions research'

Some proxy indicators are available to characterize the relative extent of funding committed to the addictions field, and its evolution over time, by CIHR/INMHA. Figures provided by CIHR on request suggest that funding committed for research on 'addictions' topics rose from \$2.197 million (or \$0.09 per capita) in FY 2000/01 to \$16.304 million (or \$0.53 per capita) in FY 2007/08 [see Table 1]. This evidently indicates both a substantial absolute increase in funding committed to the area, as well as – albeit on a much smaller scale - a proportional increase when considering the overall CIHR funding budget increases in this period. Roughly, the proportion of funds devoted to addictions research relative to overall CIHR budgets rose from approximately 1% in 2000/01 to approximately 2% in 2007/08. This suggests that over the past decade, funding for addictions research has been extended, yet constitutes a relatively small funding item.

Table 1 CIHR estimated expenditures related to addictions ^{1,2}

FY 2000/01	FY 2001/02	FY 2002/03	FY 2003/04	FY 2004/05	FY 2005/06	FY 2006/07	Current and Future FY Commitments
2,917	4,647	10,984	11,582	18,271	15,290	16,788	27,139

¹ As at January 2008² In thousands of dollars

The publicly available CIHR funding database indicates that all research funding by any funding vehicle authorized and linked to INMHA related research themes for the period 2000/01 – 2008/09 amounted to \$828,490,400; for the same period, research funding specified as related to 'addictions' or 'non-medical use of drugs' as keywords and associated with INMHA amounted to \$66,730,859 (the discrepancy of this – smaller - figure with the overall CIHR figure of funding for addictions research reported above can partly be explained by the fact that not all 'addiction research' is identified with INMHA as its primary institute affiliation, yet could primarily be tied to other CIHR Institutes). In other words, research in these areas and identified this way accounted for <10% of research associated with INMHA as its identified priority institute, suggesting that such research plays a relatively minor role in the INMHA funding landscape.

A breakdown of above over-time CIHR figures for research funding for 'addiction' by 'research pillar' provides some insights into the relative role of the main research areas funded (see Table 2) between FY 2000/01 and FY 2006/07. In essence, these figures suggest that in CIHR's early days, 'biomedical' research constituted the single-largest area receiving funding for research in addictions (approximately 40% of funds in FY 2000/01). This picture gradually changes towards the present, when the 'social/cultural/environmental/population health' area becomes the single largest area receiving funding for addiction research (approximately 40% in FY 2006/07), compared to approximately 25% for biomedical research in that year. While these figures are crude, they suggest a diversification of the areas or approaches of addiction research for which funding

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is provided, and a gradual and partial shift away from the traditional dominance of biomedical addiction research which CIHR had inherited from the old MRC.

Table 2 CIHR expenditures related to addictions, by “research pillar”

Primary Theme	FY 2000/01	FY 2001/02	FY 2002/03	FY 2003/04	FY 2004/05	FY 2005/06	FY 2006/07
Biomedical	1,233,261	1,935,970	2,577,866	3,221,640	3,012,435	4,331,367	4,310,819
Clinical	252,073	723,191	3,789,126	1,230,396	4,781,418	2,181,396	1,680,067
Health systems /services	202,698	881,388	1,559,257	2,300,981	2,371,428	1,953,897	1,831,551
Not applicable/ specified	10,000	20,831	260,000	250,000	250,000	334,200	344,961
Social/Cultural/ Environmental/ Population Health	198,949	746,042	2,378,152	3,926,650	5,329,304	4,875,248	7,083,850
(Blank)	1,020,404	339,176	419,728	651,946	2,526,251	1,614,017	1,536,685
Total	2,917,385	4,646,598	10,984,128	11,581,613	18,270,836	15,290,125	16,787,933

Social Sciences and Humanities Research Council (SSHRC) >www.sshrc.ca<

The Social Sciences and Humanities Research Council (SSHRC) is the Canadian federal research funding agency supporting university-based research in the humanities and social sciences. It was established in 1977 by an Act of Parliament. Its overall funding budget increased from \$129.3 (or \$4.31 per capita) in 2000/2001 to \$312.7 million (or \$9.89 per capita) in 2007/08. Like CIHR, it uses a variety of research funding vehicles of which standard and special research grants (41% in 2007/08) together with graduate scholarships and fellowships (32%) account for the bulk of research funding expenditures.

While the humanities and social sciences might be seen as peripheral to addiction research, they are not irrelevant, especially given that Canadian investigators affiliated with disciplines like psychology, behavioral sciences or criminology – which are of relevance in addiction studies - draw part of their funding from SSHRC. A search in the SSHRC database of funded projects since 2000/2001 identifies a total of 66 funded research projects (all research vehicles) with ‘addiction’ in the keywords or titles. The cumulative funding for these projects represented a total amount of \$ \$1,707,075 or <0.1% of the cumulative total SSHRC research funding budgets from 2000/2001 to 2007/08.

Canada Foundation for Innovation (CFI) >www.innovation.ca<

The Canada Foundation for Innovation (CFI) is a public funding agency at the federal level created by the Government of Canada in 1997 to fund research infrastructure (e.g., state of the art equipment, buildings, laboratories and databases required for research) towards strengthening research capacity in Canadian public/not-for-profit research institutions to carry out world-class research and technology development in all areas of research (yet primarily in the natural sciences, engineering and health sciences). Infrastructure projects are funded on a match-funding basis with funding partners from the public, private and voluntary sectors. Objectives of funding support include: to strengthen capacity for innovation; attract and retain highly skilled research personnel in Canada; stimulate the training for highly qualified research personnel for research; promote research networking, collaboration and multi-disciplinarity. Applications for CFI funding are submitted by institutions and assessed on a merit basis. Since its creation, the CFI has committed more than \$3.8 billion (or approximately \$120 per capita) in support of 5'714 projects at 128 research institutions across Canada. Since 1999, the CFI has funded a total of 20 infrastructure projects – some in conjunction with other federal research funding initiatives,

e.g. Canada Research Chairs – under the keyword rubric of ‘drug abuse and addiction’ for a total amount of \$2.74 million.

Canadian Health Services Research Foundation (CHSRF) >www.chsrf.ca<

The focus of the CHSRF is on the support of evidence-based decision-making in the organization, management and delivery of health services by way of funding research, building capacity and transferring knowledge. The CHSRF is hence a complementary funding source to research commonly placed under research pillar 3 (Health Systems and Policy Research) of the CIHR. Special funding programs include a ‘Research, Exchange and Impact for System Support (REISS) Competition’, a ‘Decision Support Synthesis Program and a Nursing Research Fund, as well as an Open Grants Competition. Funding support in 2006 amounted to \$1.7 million, yet was increased to \$5 million in 2007.

Canada Research Chairs (CRC) Program >www.chairs.gov.ca<

In order to reinvigorate Canada’s excellence in research and development in the world, the Government of Canada created a new permanent program to establish 2000 research professorships – the Canada Research Chairs (CRCs) – in universities across the country by 2008. The program invests \$300 million a year to attract and retain top researchers from abroad and within the country in the fields of natural sciences, engineering, health sciences, humanities and social sciences. CRCs are divided into Tier 1 (\$200,000 per year for seven years, renewable once) and Tier 2 (\$100,000 for 5 years, renewable once) positions. To date, just over 1,800 CRC positions have been filled. Of these CRCs, a total of 10 Chairs include ‘addiction’ as a keyword in their program description; four of which are Tier 1 and six of which are Tier 2 CRCs. Six of the Chairs fall primarily in the areas of biomedical and/or clinical research and four relate primarily to the social sciences and/or population health.

Health Canada >www.hc-sc.gc.ca<

The federal Canadian government’s ministry responsible for health (‘Health Canada’) facilitates and funds health research as discretionarily seen necessary – typically by research contracts to institutions or individuals - within its topical areas of operations, including addictions and psychoactive drug use. For example, Health Canada was a major funder of the 2002 Economic Costs of Substance Abuse study (Rehm et al. 2006). A more formalized and – within set topical parameters - investigator-driven research program relevant for illicit drug use was set up by Health Canada in 2003 in the form of the ‘Drug Strategy Community Initiatives Fund’ (CIF). This program was created with an annual budget of ~\$10 million “to facilitate the development of national and community-based solutions to substance abuse problems, and to promote public awareness of substance abuse issues”, specifically in two key areas of activity: 1) health promotion and prevention; 2) harm reduction. As of 2007, the CIF became more closely aligned with the new federal government’s ‘National Anti Drug Strategy’ which is funding the program, and on this basis put more emphasis on anti-drug prevention and education in high-risk groups, e.g. youth, students, street youth etc.

4.2 Provincial Funding Agencies

There are several provincial funding agencies for health – including addiction - research funding support in Canada. The – by far – largest and wealthiest one is the **Alberta Heritage Foundation for Medical Research (AHFMR)** in the (energy-rich) province of Alberta. It was created in 1980 based on an endowment of \$300 million from the government of Alberta, which has been increased to \$1.49 billion by 2007. The AHFMR provides operating, team, infrastructure, personnel and trainee support grants in all sectors of health research; total funding support provided amounted to \$62 million (or ~\$19 per capita) in 2007. This amount of provincial health research funding from AHFMR in Alberta is quite considerable, as it amounts to about 8% of health research funding available from the primary federal health research funding agency, the CIHR, in the same year, a rate that approximately reflects the

proportion of the Alberta population (3.29 million) compared to the total population of Canada (31.6 million in 2006). In other words, the province of Alberta provides an approximately equally sized amount of health research funding to its health researchers in the province as does the prime federal health research funding agency for Canada as a whole. The **Michael Smith Foundation for Health Research (MSFHR)** in British Columbia is less than a decade old, yet features a similar funding portfolio to AHMFR. Its total per annum funding support rose from \$6.7 million in 2002 to \$35.2 million (or ~ \$9 per capita) in 2007. The **Fonds de la Recherche en Sante du Quebec (FRSQ)** mandate is to implement the Government of Quebec's human health research strategy in all four pillar areas of health research. It funds personnel and training, research team and centre as well as knowledge dissemination and partnership grants. FRSQ's overall research budget rose from \$6.8 million in 2000 to \$11.8 million in 2002, yet then declined to \$8.6 million (or ~ \$1 per capita) in 2007. Other provincial health research foundations with similar structures and foci to the ones listed above include the **Nova Scotia Health Research Foundation (NSHRF; 2007 budget: \$6.4 million or ~\$7 per capita)**, the **Medical Research Fund of New Brunswick (MRFNB; no budget figures available)**, the **Saskatchewan Health Research Foundation (SHRF; 2007 budget: \$7.8 million or ~\$8 per capita)**, the **Manitoba Health Research Council (MHRC; 2007 budget: \$5.1 million or ~\$4 per capita)**.

5 Model of prioritisation and coordination of research funding

Prioritization and coordination of research funding for and within the realm of addiction is proactively directed in terms of content only to a rather limited extent, mainly because of the structure of the Canadian health research funding landscape which predominantly relies on open and investigator-driven proposals/competitions that are adjudicated by peer-review processes on the basis of their scientific merit. In other words, the content or focus of research is only in a minority of occasions specified or directed, e.g. by way of strategic initiatives with a defined thematic area. Probably the most important mechanism of influencing the quantity, breadth and depth of research conducted in the areas of health or addiction research is by allocating the amounts of funding available to the respective funding agencies; this typically – e.g., in the case of CIHR – happens through specified allocations in the annual federal budget. Once such an annual budget figure is set, CIHR's governance mechanisms decide which part of its budget flows into the funding for the open competition, and which part is given to the Institutes (e.g., for strategic initiatives within specific topical areas). These decisions have a strong impact on funding success rates. For example, at CIHR in recent years, despite nominally growing funding budgets, the proportion of successful funding applications in the open grants competition has dropped from around 30% at its highest to about 15% at its lowest point. These developments are rooted mainly in the fact that an increasing amount of available funding was committed through larger and longer-term grants, yet also that the system had created more research capacity, and hence more investigators have been applying for research funding.

Within the specific environment and jurisdiction of INMHA, strategic funding priorities are set by the Scientific Director in close collaboration and development with the Institute's Advisory Board (IAB). The IAB is intended and designed to be a representation of the research community covered by the INMHA's mandate, and hence includes members from different substantive areas (including addiction research) disciplines and regions/institutions of Canada for a greatest possible degree of 'representativeness'. In specific instances – e.g., for the identification or development of longer-term strategic initiatives or their specific content foci, for example in the addiction research realm – the Institute would rely on the implementation of research agendas or priority development workshops. These would often occur with relevant partner agencies or institutions (e.g., Health Canada or the Canadian Centre on Substance Abuse), and include invited representatives of the relevant research community, i.e., primarily investigators from universities and research centres/hospitals, yet

also government researchers or policy officials, private sector/industry (e.g., pharmaceutical industry) representatives, etc. Such efforts, for example, included:

- “*The Canadian Addictions Researcher Workshop: Moving Toward a Plan of Action to Develop a National Research Agenda*”, co-hosted by CIHR/INMHA, CCSA and Carleton University, Ottawa, 15 – 16 December 2001
- “*Workshop on Neuroethics*”, hosted by CIHR/INMHA Toronto, 08-09 November 2002
- “*Forum on Alcohol and Illicit Drugs Research in Canada*”, Ottawa, 2 – 4 October 2004, “to develop a strategic addictions research agenda, ranging from basic to clinical science to social, cultural and environmental research in relation to alcohol and illicit drugs”; co-hosted by CIHR, Health Canada, Public Safety and Emergency Preparedness Canada (PSEPC), Canadian Executive Council on addictions (CECA) and the Canadian Centre on Substance abuse (CCSA)
- “*National Thematic Workshop on Preventing the Problematic Use of Psychotropic Pharmaceuticals*”, Health Canada; 21-22 March 2006
- “*National Research Priorities Development Workshop for Substance Abuse and Concurrent Disorders*”, 8 – 9 November 2007, Ottawa; hosted by CIHR/INMHA

6 Priorities for 2004 – 2006

CIHR, through INMHA, offered a few specific strategic research funding initiatives – mainly reflecting priorities as per its strategic plan – in the area of addiction research. They are listed as follows, indicating research themes and funding vehicles (please note that these are only funding opportunities which explicitly refer to addictions; they do not include other general or more openly defined strategic or other CIHR funding initiatives which allowed for addiction research to be applied for, for example general calls for team or strategic training grants):

2003 RFAs (funding commencing in 2004)

- Strategic Initiative ‘Advancing the Science to Reduce Tobacco Abuse and Nicotine Addiction’:
 - Interdisciplinary Capacity Enhancement Grant Program
- Neuroethics (including addictions): New Emerging Team Grant Program

2004 RFAs (funding commencing in 2005)

- Strategic Initiative ‘Advancing the Science to Reduce Tobacco Abuse and Nicotine Addiction’:
 - + Community-Based Research Grants
 - + Idea grants
 - + Knowledge Synthesis grants
 - + Policy Research Grants
 - + Research Planning Grants
 - + Researcher Travel Grants
 - + Student Research Grants
 - + Workshop and Learning Opportunity Grants
- Strategic Initiative on Early Life Events and First Episodes of Brain Disorders (including addictions)
 - + High Risk Seed grants
 - + New Emerging Team grants
- Strategic Initiative ‘Research in Addictions: Innovative Approaches in Health Research’

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This funding initiative was largely based on input and recommendations from the 2004 Forum on Alcohol and Illicit Drugs Research (see above), and on his basis specified the following strategic research themes:

- Aboriginal peoples
 - Biology of Substance Use and Addictions
 - Epidemiology
 - Health Promotion, Prevention and Health Public Policy
 - Populations/Resiliency
 - Knowledge Exchange and Dissemination
 - Sex Differences and Gender Influences
 - System Design, Evaluation and Public Policy
 - Treatment and Relapse Prevention
 - Alcohol Tobacco and Gambling Cross-Addictions
-
- + New Emerging Team Grants
 - + Policy Research Grants
 - + Knowledge Synthesis Grants
 - + Secondary Analysis Grants
 - + New Discoveries: High risk seed grants

2006 RFAs (funding commencing in 2007)

- Operating Grant Priority Announcement: Neurosciences, Mental Health and Addictions (will fund highly rated investigator-driven research applications relevant to INMHA's mandate yet which do not meet funding cut-offs of CIHR's regular operating grant competition).
- Operating Grant: Neurobiology of Psychiatric Disorders and Addictions
- Synthesis Grant: Knowledge Translation in Mental Health and Addiction
- Team Grant: Mental Health in the Workplace

2007 RFAs (funding commencing in 2008)

- Strategic Initiative: Prevention and Treatment of Substance Use
 - + Catalyst Grant
 - + Team Grant

B Research structure

7 Key research structures involved at national level

7.1 Key Research Meetings/Conferences/Societies

Canadian addiction research – for circumstances that go far beyond this specific area, including socio-geographic proximity as well as the relatively small Canadian population base – runs very few of its own or sovereign meetings or conferences in the addiction research field. For these purposes, it is closely interlinked with the US, as well as other English-language countries, in that researchers predominantly attend research meetings/conferences that are primarily rooted in the US or elsewhere; in fact, many of the large US-based societies (e.g., annual meetings of the College on Problems of Drug Dependence, American Psychiatric Association, American Psychological Association) regularly hold their meetings on Canadian soil, in a way as if Canada was part of the US. Furthermore notable – and different from the US, the UK and even Australia – is the fact that Canada is not home to a scientific journal devoted to addictions issues.

The major Canadian societies/meetings include:

Canadian Society of Addiction Medicine (CSAM) >www.csam.org<

The Society “offers a resource of scientific and medical information about addiction, for professionals and the general public. Bulletin articles with news and views, definitions, policy statements and networking are available to improve the understanding, assessment, treatment, prevention and research related to addiction medicine in Canada and around the world”. CSAM holds an annual two-day scientific meeting.

‘Issues of Substance’ >www.issuesofsubstance.ca<

This biennial conference was started in 2005 and is hosted and convened by the Canadian Centre on Substance Abuse (CCSA) as a national conference in Canada exclusively devoted to research in addictions.

Canadian Psychiatric Association (CPA) >www.cpa-apc.org<

Even though it does not mention addiction in its vision or strategic priorities, addiction is often subsumed under psychiatry in the Canadian context – mainly in the context of treatment due to its definition as a ‘psychiatric disorder’, yet also for research purposes. The CPA is the national voluntary professional association for Canada’s 4000 psychiatrists, hosting an annual scientific meeting with approximately 1200 professionals in attendance.

7.2 Major Addiction Research Centres/Institutions in Canada

The Addiction and Mental Health Research Laboratory (AMHRL)

>www.chps.ualberta.ca<

AMHRL is based at the University of Alberta’s School of Public Health in the Faculty of Medicine and comprises relevant faculty and investigators from different disciplines interested in addiction and mental health issues. The AMHRL investigates psychosocial aspects of addiction and mental health, using quantitative and qualitative tools to address these complex issues. Lab projects adopt an interdisciplinary population health approach and include prevalence studies, secondary interventions, phenomenological and ethnographic methods, psychometrics, and randomized controlled trials. The AMHRL has approximately 10 staff comprising a Director and Research Associates/Assistants.

The Addictions Foundation of Manitoba (AFM) >www.afm.mb.ca<

AFM is a provincial agency at arms-length from yet funded by the Government of Manitoba, originally established in the 1950s alongside several other similarly modeled addiction

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research and service agencies in several Canadian provinces (e.g., the Addiction Research Foundation in Ontario, or the Narcotic Addiction Foundation of British Columbia, both of which no longer exist). AFM is mandated to contribute to the health and well being of Manitobans by addressing the harms associated with the use of alcohol and other drugs and with gambling. It provides a range of prevention, education, rehabilitation and research services and is accredited by the Canadian Council on Health Services Accreditation (CCHSA). The Research and Quality Monitoring department at AFM aims to provide expertise, increase awareness, disseminate knowledge, assess program effectiveness, and stay apprised of current developments in the area of addictions research. The department has formed partnerships with local and national networks in order to facilitate evidence-based decision-making. Research includes evaluation of programs, conducting scientific research using data from provincial and national sources, collecting addictions related prevalence data, reviewing current literature and best practice information, informing AFM staff and the general population about addictions research, establishing and maintaining partnerships and maintaining a database on AFM clients.

The Alberta Alcohol and Drug Abuse Commission (AADAC) >www.aadac.com<

Similar to AFM, AADAC is an agency funded by the Government of Alberta to assist Albertans in achieving freedom from the harmful effects of alcohol, other drugs and gambling. AADAC's role is to promote people's independence and well being through increasing use of social, emotional, spiritual and physical resources, and to provide cost-effective, holistic alternatives to hospital-based and medical services. AADAC is mandated by the Alcohol and Drug Abuse Act to operate and fund programs and services and to conduct research.

Research services at AADAC aims to inform evidence-based decision-making, effectiveness, and accountability of AADAC's policies, programs, products, and services; monitors substance use and gambling among Albertans through research such as The Alberta Youth Experience Survey (TAYES) and collaborates with national partners on research projects such as the Canadian Alcohol and Drug Use Monitoring Survey (CADUMS); measures, analyzes and reports on performance data to meet Alberta Government accountability requirements; conducts ongoing research and evaluation related to AADAC programs and services; shares research findings and implications with AADAC staff and the public to improve the understanding of addictions and addiction-related work across the province; administers AADAC's Third Party Research procedures, which apply to research that is not conducted under contract or under the direct supervision of AADAC staff.

The Brain Research Centre (BRC) >www.brain.ubc.ca<

Located in Vancouver, BRC is a partnership between Vancouver Coastal Health and the Faculty of Medicine at the University of British Columbia (UBC) and located at the UBC. BRC has combined forces with broad, multi-disciplinary research expertise at UBC to advance knowledge of the brain and to explore new discoveries and technologies which have the potential to reduce the suffering and cost associated with disease and injuries of the brain. BRC is built around six pillars of neuroscience research, one of which is mental health and addictions. There are now over 200 faculty members affiliated with the Centre, representing about twenty university departments and six faculties. The Centre is also well connected to each of the teaching hospitals in the Lower Mainland, as well as BC's Simon Fraser University, the University of Victoria, and the University of Northern British Columbia.

The Canadian Centre on Substance Abuse (CCSA) >www.ccsa.ca<

CCSA was created by an act of federal Parliament in 1988 and has a legislated mandate to provide national leadership and evidence-informed analysis and advice to mobilize collaborative efforts to reduce alcohol and other drug-related harms to the Canadian

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population. CCSA receives core funding from Health Canada, the federal government department responsible for health. CCSA's Research and Policy Division facilitates and contributes to the creation, dissemination and application of knowledge and expertise related to substance use and abuse prevalence, social and economic harms, harm minimization strategies, and approaches to control, prevention and treatment. Key activities include leading and contributing to the development of policy documents and statements on substance abuse and addiction issues of national significance; and developing and fostering networks, brokering relationships, and coordinating efforts among researchers and policy makers in the substance abuse and addictions field. Examples of divisional activities include the Canadian Addiction Survey (2004), Canadian Community Epidemiology Network on Drug Use (CCENDU) and 'The Economic Costs of Substance Abuse in Canada' study.

The Centre for Addiction and Mental Health (CAMH) >www.camh.net<

CAMH is Canada's leading – and North America's largest - academic addiction and mental health teaching and research hospital, and as such is fully affiliated with the University of Toronto. CAMH is formally a provincial hospital and was created in 1997 as the product of a provincial hospital merger of the Clarke Institute of Psychiatry, the Addiction Research Foundation, and two smaller addictions treatment facilities. CAMH applies the latest in scientific advances, through integrated and compassionate clinical practice, health promotion, education and research. CAMH brings together four areas of scientific focus: Neuroscience; Clinical Research; Social, Prevention and Health Policy Research; and the Positron Emission Tomography (PET) Centre. As a public hospital, CAMH receives its bulk of operating funds from the Toronto Central Local Health Integration Network (TC LHIN). There are more than 100 full-time scientists – most of whom are appointed faculty in various faculties/departments at the University of Toronto - in CAMH's Research Division, working on biobehavioral, clinical and socio-cultural aspects of mental health and addictions research.

The Centre for Addictions Research of BC (CARBC) >www.carbc.ca<

CARBC is a recently (2004) created university-based research centre anchored in a provincial research network involving a partnership of Simon Fraser University, Thompson Rivers University, the University of British Columbia, the University of Northern British Columbia and the University of Victoria, and core-funded by an endowment from the Kaiser Foundation of British Columbia. Its core offices are located at the University of Victoria, Victoria. CARBC focuses mainly on social science research in the addictions and substance use fields and maintains various agreements with other collaborating centres and researchers at other BC universities, while closely working with provincial government agencies and departments as well as local health authorities in the development of substance use related policy and programming. CARBC currently has approximately 11 affiliated faculty and employs around 30 full- and part-time staff, including directors, research associates/assistants/fellows, undergraduate and postgraduate students, data/policy analysts and administration.

The Centre for Applied Research in Mental Health and Addiction (CARMHA) >www.carmha.ca<

CARMHA is a research centre within the Faculty of Health Sciences at Simon Fraser University. The mandate is to conduct population-based health services research that can be applied to enhance the effectiveness, efficiency, and quality of mental health and addiction services in British Columbia and beyond. CARMHA currently has approximately 16 core staff.

The Correctional Service Canada Addictions Research Centre (CSC-ARC)**>www.csc-scc.gc.ca/text/rsrch/brochures/addictions-eng<**

CSC-ARC was established in 1999 with a mandate to conduct research on addictions issues in the federal correctional system in Canada. It is located in Montague, in the province of Prince Edward Island, and is formally a part of the research branch of Corrections Canada. CSC-ARC has a mandate to encourage and stimulate addictions research in the criminal justice system and to develop a co-ordinated program of applied research activity across jurisdictions. Through the creation and dissemination of substance abuse knowledge and expertise, CSC-ARC's role is to enhance correctional policies, programming and management practices. Examples of current programs include: Community intervention development with the John Howard Society; intensive support units for addicted inmates; high-intensity substance abuse program; methadone maintenance program: pre- and post-release; development of a new Substance Abuse Assessment Instrument for correctional inmates.

Recherche et intervention sur les substances psychoactives (RISQ)**>www.risq-cirasst.umontreal.ca<**

RISQ is a multi-disciplinary research institution in the province of Quebec carrying out integrated psycho-social research with the central aim of understanding addiction, those at risk of addiction and the development of effective intervention strategies. RISQ is a research network comprised of numerous partners, including various Quebec hospitals, treatment centres, relevant provincial government departments and other institutions. Its core funding comes from of a team and centre grant from the Social Sciences Research Council of Quebec, as well as financial support from the Quebec Ministry of Health and Social Services. The team is made up of 14 core researchers and 3 collaborators, approximately 10 partners (including CCSA, local hospitals, health and social services) and supervises approximately 30 students.

8 Key research topics and areas / trends 2000 – 2007

Each of the listed addiction research areas was open and available for investigator-driven research proposals to any of the existing funding agencies in the examination period. The explicitly identified priorities of the CIHR Strategic Research Initiative 'Research in Addictions: Innovative Approaches in Health Research' launched in 2004 - largely based on input and recommendations from the national 2004 Forum on Alcohol and Illicit Drugs Research – directly or indirectly listed/subsumed the first six of the topics listed (i.e., drug mechanisms, effects and detection; aetiology and lifecourse; epidemiology; intervention; policy; legal frameworks). A search within the CIHR funding database (funded projects from 2000 to current) with the keyword 'addiction' and each of the topic terms suggests that research funding projects were approved in three of the topic fields in the period of interest (given the discrepancy to the above topic list, it should be noted that projects in other areas may have been funded, yet were not adequately labeled or captured by respective keywords):

Addiction and Epidemiology: 14 funded applications (total: \$6,194,570)

Addiction and Intervention: 23 funded applications (total: \$11,095,816)

Addiction and Policy: 24 funded applications (total: \$11,502,447)

Please note that this list includes several key limitations, namely that projects can be multiply listed and that due to the crudeness of the available data, projects identified under 'addiction' can focus on topics outside of illicit drugs (e.g., alcohol or tobacco).

Of further possible value for the description of activity/productivity trends in addiction research in the specified areas of interest are the results of a search in key English-language publications databases (i.e., PubMed, Medline, Social Sciences Index, PsychInfo), using the

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search terms: Canada AND heroin OR opioids OR cocaine OR crack OR cannabis OR amphetamines OR illicit drug OR injection drug (search in title and abstract) for the period 2000 – 2007.

For these search terms, the results were as follows:

	PubMed	Medline	Social Sciences Index	PsychInfo
2000	10	9	0	3
2001	11	13	0	4
2002	20	17	1	12
2003	32	27	2	15
2004	28	14	0	10
2005	39	26	1	15
2006	35	34	0	19
2007	42	31	1	23

The results of this search indicate that there has been a substantial increase in publications-index listed publications in the addiction topic areas of interest with explicit reference to Canada over the time period, which can be viewed as a result of increased research funding and capacity building efforts in these fields during that time.

9 Major research collaborations in the drug field with EU partners ¹

There are clearly extensive possibilities of research collaboration in addiction research between Canada and the EU. In fact, over the past few years, CIHR/INMHA has established several concrete collaboration agreements within the INMHA scope of research with funding partners in member or associated member countries of the EU. One field of meaningful collaboration would be joint funding programs for basic science, e.g. neuroscience or pharmacology projects, in the area of addictions. Such research efforts and their outcomes are not place or environment specific, and could be funded and conducted collaboratively by international research teams and lead to greater synergies and efficiencies in the use of available research funds. Collaboration should also be enhanced in the field of clinical research. As one example, a total of at least 5 major clinical studies on the effectiveness of medical heroin prescription for chronic heroin addiction have been conducted in EU member/associate countries (Switzerland, Netherlands, Germany, England) and Canada over the past 15 years, with a total research cost of probably \$50 million or more (and more studies on the topic are in development in other EU countries). These studies all aimed to address very similar questions, and considerable research efficiencies – or added scientific value – could have been achieved by collaborated research & funding efforts across borders. There are a variety of other research topic in the field of clinical interventions concerning addictions for which such collaborations seem highly desirable in the future (e.g., new treatment agents, vaccines etc.). Collaborations clearly also seem to make good scientific sense on issues or questions where environment or ecology (e.g., in the form of culture, norms or policy environments) matters and may constitute an important possible modifier on behavior, for example, in the comparative epidemiology, life-course research or policy studies concerning specific forms of illicit drug use in various populations of interest. Given its persistent and high prevalence, such cross-cultural research may be valuable in the area of cannabis use yet also other emerging forms of illicit drug use (prescription analgesic misuse as one possible example).

¹ The statements in this section represent the views of the author only and not of any groups or institutions with which the author is affiliated.

C Evaluation

10 Evaluation of the country situation by the author²

After health research funding in Canada overall had reached a low-point towards the end of the previous decade, the creation of several new research funding entities on the federal level relevant for health research operations and infrastructure funding – primarily CIHR – signaled the beginning of a new, considerably ‘richer’ era for health and addictions research in Canada. This initial era (approximately the time period 2000 – 2005) was characterized by considerable funding increases, which have brought funding for health research in Canada to unprecedented levels; since then however funding increases have more or less ebbed off. The future of health research is also uncertain due to arising political and economic uncertainties (e.g., a recent change in the federal government).

In the above context, substantially larger amounts of funds have been available for addictions research. Structurally, however, addiction research is placed in a position with limited profile and independence within CIHR, since the topical area of ‘addiction’ is folded into a CIHR Institute (INMHA) dominated by the two larger research domains of neuroscience and mental health. This probably does not allow for the kind of profile or identity for the addiction research field which it would have by way of a uniquely designated institute (e.g., along the lines of the NIDA within the NIH).

The other key structural variable is that by-and-large, health research funding in Canada is largely investigator-driven (e.g., through open grants competitions), making ‘directed’ or strategically regulated research foci and programs mainly the exception and more difficult to implement. This brings advantages and disadvantages. One of the downsides of these circumstances may be that the country may not necessarily get the kind of research that is most acutely needed for change in practices or interventions, yet that the research done mainly reflects the skills, foci and interests of its existing scientific community. One of the predominant realities emerging from the Canadian health research funding landscape and its dynamics is that overall the largest proportion of health research is funded/conducted in the areas of bio-behavioral (‘basic’) research (which makes up for more funding within CIHR than the other pillars combined). This pattern has also held true originally for the addiction research field yet – according to data made available by the CIHR – has shifted over the course of CIHR’s existence. While bio-behavioral research constituted to the main research domain to which funding for addiction research was given to by CIHR in FY 2000/01, the area that received the largest amount of funding in FY 2006/07 was social science/population health research. This constitutes an important shift at least within the profile of CIHR funding for addiction research, and likely reflects both increases in research capacity created within the social science/population health areas in recent years, yet also an acknowledgment of the fact that key addiction research issues (e.g., social determinants of health, epidemiology, prevention & policy) cannot sufficiently be addressed by the frameworks and tools of basic research. Canadian social sciences-based addiction research also appears to have gradually but consistently increased its overall strength and recognition internationally in recent years, contributing to fields like economic cost/disease burden, social epidemiology, public health and interventions related to addictions. This partial shift in disciplinary priorities may also in part address earlier critiques of the addiction research funding profile existent in Canada (see Room & Rehm 2003), namely that its main research foci may entail substantive redundancies or overlap with addiction research conducted in other parts of the world, e.g., bio-behavioral addiction research in the US, rather than addressing uniquely Canadian questions or problems that should be tackled especially when

² The statements in this section represent the views of the author only and not of any groups or institutions with which the author is affiliated.

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considering the relatively small resource base and critical mass of addiction research in Canada. Outside of the basic and social science research domains, an area that clearly seems to require strategic strengthening is that of clinical research in the addictions field. For example, while playing a rather significant role worldwide and making seminal contributions to clinical addictions research between the 1950s and 1980s, clinical addictions research in Canada has lost a considerable part of its international influence and reputation since then.

A further important point concerns research coordination. By the judgment of many observers, CIHR research funding and programming may have grown and expanded too quickly (e.g., tripled the overall amount funding dispersed to the research community within about five years). In many instances, this has left the addiction research community only with limited opportunity to meaningfully prepare, develop capacity and fully utilize relevant funding opportunities (some competitions had very low participation rates in terms of the number of applications submitted). Yet at the same time, Canadian addictions researchers (especially in the bio-behavioral fields) still draw considerable amounts of funding from US sources, the amount of which however can not readily be determined on the basis of available data. Even within the substantially enlarged funding resources available, the Canadian addiction research funding landscape is one that almost exclusively builds on 'soft' monies, i.e. grants usually limited to a few years at the maximum, which makes efforts like long-term cohort studies (e.g., to investigate life-course careers in addiction) hard or impossible to solidly develop and execute. It is also not fully clear at this point to which extent the much improved Canadian funding available has led to corresponding increases in impact (e.g., more effective interventions, lessened burden of disease related to addictions). In terms of scientific indicators, an examination of addiction related publications listed in major indices suggests that there has been an increase in publications with reference to Canada in different domains in the period 2000 – 2007, suggesting a positive impact on productivity from funding and capacity increases.

A current high-profile example of the limitations of the impact of science on policy in the addictions field is the Supervised Injection Site (SIS) in Vancouver established in 2005. This intervention – supported by Canadian and US funding – has generated approximately 25 publications in high-level journals like the *New England Journal of Medicine*, the *British Medical Journal* and the *Lancet* demonstrating its largely positive effects, yet could not convince the federal government to provide stable legal approval for the SIS beyond the temporary and short-term exemptions it had been given (Hwang 2007). A provincial court decision recently sheltered the SIS from forced closure by the federal authorities, yet the government announced to appeal the court decision.

At the same time, in many instances there is very little coordination – and hence a considerable amount of fragmentation - between federal and provincial funding bodies, as these entities typically operate with separate and sovereign mandates and priorities. Furthermore, while the intensive focus of federal funding agencies on capacity training has produced a sizeable community of young researchers in the health and addiction research areas, many of these new investigators are now struggling in times when funding increases have flattened off and the much lower success rates in grants competitions is making it hard for them to obtain research funding needed to launch or expand their independent investigator research programs. In many ways, the Canadian addiction research community – as is the country itself - is rather fragmented. Some of this relates to the situation of bilingualism – many francophone researchers, e.g., in Quebec, are much more likely to collaborate with European colleagues than with other Canadians – as well as the strong 'regionalization' of health and other research in general.

In sum, addiction research in Canada is considerably better funded than a decade ago; research funding and activities are in many instances somewhat fragmented and perhaps

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not as well well-coordinated as they could be. While addiction research – even though rather badly funded - used to be seen largely as a sovereign area (especially as distinct from mental health and/or the neurosciences) in the pre-CIHR era, recent relevant institutional developments (e.g., the establishment and particular profiling of CIHR and the configuration of INMHA as the relevant home Institute for addictions research, or the merger-product of CAMH as the country's largest public research organization including addiction as a focus – all of which however do not house addiction as a sovereign focus yet accommodate it next to the more dominant areas of mental health/psychiatry and neuroscience) paradoxically appear to have forced 'addiction' into somewhat of a 'shadow existence' in terms of its profile and relevance. Especially in the context of the larger socio-political contexts described, the long-term future of health and thereby addiction research funding in Canada unfortunately cannot be reasonably predicted at this point.

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Appendix

CIHR-INMHA Institute Advisory Board (IAB) Members (As of September 1, 2007)

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Situation of drug related research in Australia
Drug Abuse Research in the Australia: Structure, Funding, Progress

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1 Abstract

Australia has a good track record in illicit drug research, as demonstrated by the fact that we are the second or third most published nation in both “Addiction” and “Drug and Alcohol Dependence”.

The two national drug research centres, National Drug and Alcohol Research Centre (NDARC) and the National Drug Research Institute (NDRI) are both significant players in Australian illicit drug research. The Commonwealth government provides annual core funds to both centres, which amounted to a total of \$3,357,000 in 2006.

Funding sources for Australian illicit drug research include government (commissioned) research (otherwise referred to as core funding), generic competitive research funding bodies such as the National Health and Medical Research Council, and philanthropy.

It is difficult to precisely estimate illicit drug research spending in Australia. Our estimate for the year 2006 was AUS \$16.8 million dollars. This represents a per capita spending of \$0.81 cents per annum per Australian. Relative to overall Australian investment in health research it is a very small amount. The NHMRC annual fund is \$539m, of which \$9.9m is invested in illicit drugs research, representing 1.8% of the total competitive health research investment.

Forty per cent of current illicit drug research in Australia is in the ‘interventions’ category. There does seem to be under investment in the basic sciences relative to epidemiology (28%) and interventions research (40%).

2 History of strategic development and vision behind the development of research capacity and funding infrastructure

Prior to 1985, Australian drug research was not co-ordinated nor centralised. Research occurred in a number of universities as part of medical, psychology and criminology faculties as well as in some hospitals. The major event in the history of drug related research in Australia was the creation of the first national strategy aimed at drug use; the *National Campaign against Drug Abuse* (NCADA) which was adopted in 1985.

The NCADA included the creation of two national drug research centres, the *National Drug and Alcohol Research Centre* (NDARC) in Sydney, and the *National Drug Research Institute* (NDRI) (previously called National Centre for the Prevention of Drug Abuse) in Perth. These centres were established by the Federal Government in 1986. A third centre, the *National Centre for Education and Training in Addiction* (NCETA) was opened in Adelaide 1991, with funding from the Federal Government, the South Australian Government, and Flinders University. These centres received a core research budget from the government (unfortunately information is not publically available to source the amount of core funding that was provided in 1986). The more recent funding arrangements (from 2000 onwards) are detailed in Section 4.

A National Drug Research Coordinating Committee was established around 1999 and worked for two or three years on various coordination functions, but has subsequently been dissolved. Likewise, a specific drug abuse research funding body, the Research into Drug Abuse Program (RIDAP) which was established in the late 1980s, ceased operations in the mid 1990s and researchers were referred back to other generic competitive funding rounds¹.

¹ Precise details of RIDAP are no longer available.

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Reviews of Australian drug research have occurred in the past; largely through workshops and seminars. A survey of Australian alcohol and drug researchers conducted in 1993 revealed a number of preferences by researchers at that time:

- That about half of the funds be allocated through investigator-driven research and half through agency-directed research;
- That alcohol should be funded the highest (32%), followed by tobacco (18%) and opiates (9%). Researchers felt that any remaining money should go towards research on prescribed drugs (9%), stimulants (7%), cannabis (6%), over the counter drugs (5%), cocaine (4%), hallucinogens (4%), volatile substances (4%), caffeine (3%), and other drugs (1%). Overall, researchers felt that around 30% of research funding should focus on illicit drugs.
- That in the opiate research area, 20% of funds be directed towards primary prevention research; and between 10 to 12% each between laboratory research, descriptive research, treatment and dissemination studies. Of interest is the contrast with what was actually being published in the early 1990s: 64% descriptive research; 12% in total in the treatment and prevention area.

(Walsh, Low and Sanson-Fisher (1998) Researchers views about priorities for research on alcohol, tobacco and other drugs. *Drug and Alcohol Review*, 17, 111-115)

This research has not been further replicated in more recent years, however there have been some documents describing drug research strategy in Australia. The NHMRC (Australia's generic health and medical research council) nominated illicit drugs as one of their priority areas for strategic development and commissioned a review of Australian illicit drugs research in 1998. This review of illicit drug research in Australia (Hando et al., 1999) documented research related to prevalence and patterns of use, risk factors, related harms, and health interventions, finding that the majority of research being conducted at the time of the review was focused on interventions and epidemiology, with little research on risk factors.²

The Alcohol and other Drugs Council of Australia (ADCA)³, published a position paper on research in 2003⁴. They noted the strong international reputation of Australian drug research and noted that the establishment of the three national centres referred to above has "created a strategic and cooperative partnership between...the drug research community, decision makers and service delivery personnel". They identified areas for further consideration including research quality, the use of evidence in decision making (a much broader issue than research investment), the balance between commissioned and investigator-driven research; ethics approvals and various other aspects to Australian drug research.

In summary, research has played a prominent role in the Australian response to illicit drugs and has been explicitly supported (both with direct research funds and infrastructure support) since 1985. As a result, Australia has a fine reputation for producing high quality and significant drug research.

² The Hando et al report was a qualitative review, so statistics about proportions of research activity in different domain areas or funding were not available.

³ ADCA is the peak non-government organisation (NGO) representing the interests of the alcohol and drug (AOD) sector in Australia. Its membership includes those involved in AOD services, as well as researchers, law enforcement and policy analysts. It aims to promote evidence based policies and strategies to reduce the harm of alcohol and drug use.

⁴ <http://www.adca.org.au/images/policy/docs/2.9%20research%202003.pdf>

3 Future strategic approaches aimed at building research capacity and research funding infrastructure

In light of the historical focus on drug research, it would be assumed that future strategic approaches would be well developed. Documentation surrounding the future of drug research in Australia is largely limited to Australia's *National Drug Strategy (2004-2009)*⁵. This is the latest Strategy, of which there is a continuous line of strategy plans since the original NCADA in 1985, which was relaunched in 1993 as the National Drug Strategy. In 1997 the Federal Government also introduced the National Illicit Drug Strategy, 'Tough on Drugs', articulating a strategic direction for dealing with illicit drugs in particular.

The 2004-2009 Strategy lists a number of specific future actions in relation to research, including the following:

- Continue to seek opportunities to improve data collections;
- Evaluate existing activities and determine consequential impacts on patterns of drug supply, use and associated harm;
- Support research that might inform the next generation of responses to emerging drug issues;
- Improve the linkages between researchers and policy makers and facilitate the provision of relevant research advice.

The Strategy also suggests future efforts should be aimed at improving the translation between research and practice:

"Australia's research, reports and publications are internationally respected for their significant and sometimes groundbreaking contribution to innovative responses to drugs and understanding of 'what works' through careful evaluations and reviews. Improving linkages between research and other activities will be a focus of this phase of the National Drug Strategy". (page 3, NDS Framework).

There are 12 objectives to the NDS Framework, of which one is "promote evidence-informed practice through research, monitoring drug-use trends, and developing workforce organisation and systems" (page 5).

In addition to the above documented support for future illicit drug research, Australia has an established research capacity in ongoing surveillance and epidemiology of the prevalence and harms of drug use. The regular surveys include:

- National Household Survey (every 3 years) (AIHW)
- Needle and Syringe program Survey (annual) (NCHECR)
- Illicit Drug Reporting System (annual) (NDARC)
- Ecstasy and related drug reporting system (annual) (NDARC)
- Alcohol and other drug treatment national minimum dataset (ongoing) (AIHW)
- Drug use monitoring in Australia (annual) (AIC)
- Australian School Students' Alcohol and Drugs Survey (annual) (Anti Cancer Council, Victoria)
- Illicit Drug Data Report (Australian Crime Commission)

⁵ <http://www.nationaldrugstrategy.gov.au/internet/drugstrategy/publishing.nsf/Content/framework0409>

A Funding structure

4 Funding agencies and research budgets

There are two main types of drug research funding opportunities in Australia: those that form part of the larger Australian research funding bodies (ie not drug specific), and those specific funds that target drug research.

The two major Australian research funding bodies – NHMRC and ARC – contribute just over one half of the total drug research funding in any one year⁶. These two generic funds are described first, followed by other funding bodies more specific to drugs research.

The method involved identifying all funding bodies for Australian drug research then endeavouring to calculate the total investment, without double counting. It proved to be a difficult exercise and we think our estimate is below what Australia funds by way of drug research. Collins and Lapsley (2008) in their comprehensive assessment of the costs of tobacco, alcohol and illicit drug abuse to Australia noted that they were unable to include research spending as the figures were not available (page 20).

4.1 Funding agencies

National Health and Medical Research Council (NHMRC)

The NHMRC is Australia's peak body for supporting health and medical research. It provides project grants, program grants and people support (fellowships and career development awards) relating to a range of nationally prioritised health conditions, including mental illness.

In 2006, the NHRMC distributed around \$9.96m for research into substance use and addiction⁷ (illicit drugs only) from a total figure of \$539 million.

Australian Research Council (ARC)

The ARC supports both fundamental and applied research and research training across all disciplines, with the exception of clinical medicine and dentistry. The scope of the ARC's research agenda extends beyond health related research, and includes topics such as economics, engineering, humanities, mathematics and the natural sciences. In relation to the total amount of funding provided by the ARC, the proportion of funding which goes to illicit drug issues is a very small⁸ (\$300,000 in 2006).

National drug research centres funding (NDARC, NDRI, NCETA)

The Australian Government, Department of Health and Aging (AGDHA) funds the three national centres: this represents the centres' 'core' funding per annum. Each centre also receives additional funds from a variety of sources, including their own host institution and through competitive grants from the other bodies mentioned herein.

⁶ Based on a 2006 estimate

⁷ This figure is based on 2006 funding data taken from the NHMRC, and does not include projects that deal with alcohol or tobacco alone

⁸ The ARC publishes an annual list of all research projects funded (outcome statistics). These reports were examined (2001-2007), and projects that identified illicit drugs in the title and/or body were extracted. This process resulted in a very small number of projects being identified. It is unclear how many more exist.

Table 1 National drug research centres funding

	NDARC core	NDARC non-core	NDRI core	NDRI non-core	NCETA core	NCETA non-core	Total
2000	\$1,059,053	2,184,326	\$1,476,213	\$502,789	unknown	unknown	\$5,222,381
2001	\$1,220,655	2,127,418	\$1,337,167	\$848,439	\$310,000	unknown	\$5,843,679
2002	\$1,243,728	3,198,450	\$1,478,092	\$463,549	\$310,000	unknown	\$6,693,819
2003	\$1,272,334	\$2,607,861	\$1,787,838	\$585,931	\$311,503	unknown	\$6,565,467
2004	\$1,384,322	\$3,505,862	\$1,637,239	\$431,166	\$340,022	153,134	\$7,451,745
2005	\$1,447,815	\$3,801,562	\$1,706,538	\$1,252,353	\$384,064	\$349,000	\$8,941,332
2006	\$1,520,094	\$4,646,970	\$1,837,439	\$1,032,162	\$460,000	\$309,000	\$9,805,665

Note: data in the above table were taken from the Annual reports of each Centre, available online.

In 2006, the national centres represented \$9.8m of drug research funding in Australia. As can be seen, since 2000 the national research centres have progressively increased the core, Australian government funds, plus also the non-core competitive funds. The details for NDARC, the largest of the Centres, reveals that the Centre more than doubles the government's investment through competitive research grants. In 2006 25% of the NDARC funds were core and 75% non-core (competitive).

Unfortunately it is not possible to distinguish between alcohol and illicit drug research in the Centre's funding. For the purposes of this report, which is only concerned with illicit drug research, we have assumed that about half of the centres' activities are illicit drug focussed (as represented in the types of projects undertaken). Therefore for the purposes of the actual funding estimates (see next subsection) we take 50% of the core figures.

National Drug Law Enforcement Research Fund (NDLERF)

The Australian Government Department of Health and Ageing (AGDHA) funds the NDLERF, with the stated aims of:

- creating research which leads to quality evidence-based practice in drug law enforcement;
- facilitating experimentation and innovation; and
- enhancing strategic alliances and linkages between law enforcement personnel, human service providers, and research agencies.⁹

NDLERF has funded a number of research projects that have involved a direct collaboration between law enforcement, health services and research agencies. The total amount funded by NDLERF is around \$1m per annum as at 2006/7.

Australian National Council on Drugs (ANCD)

The ANCD was established in 1998 to provide advice to the Prime Minister and the Australian Government relating to drugs and drug policy. The Council's role is to facilitate partnerships between Government and the general community. It has „advisory, advocacy and representative functions, with a significant role to provide government Ministers with independent, expert advice on matters related to licit and illicit drugs“¹⁰.

The ANCD commissions a number of research projects in consideration of the ANCD's role and work plan priorities, consultation with the sector, and where the ANCD requires further information in order to provide credible advice to government. The ANCD contributes around \$250,000 to research per annum (as at 2006/7).

⁹ From NDLERF website, http://www.ndlerf.gov.au/strat_dir.php, accessed 12/8/08

¹⁰ From ANCD website

Australian Institute of Criminology (AIC)

The AIC is a Commonwealth Statutory Authority which is Australia's leading centre for criminological research. The AIC conducts a number of monitoring programs, such as the drug use of those in custody (DUMA), as well as a number of individual projects on a range of criminal issues, including drugs.

Total AIC expenditure for 2006-7 was \$8.5 Million, of this a small percentage went to drug related research, however the exact figure is unclear. In 2007, from 86 publications, 13 dealt substantively with illicit drug issues. A crude estimate of the funding for illicit drug research can be derived by taking the proportion of publications as a proportion of the funds, hence we estimate that $86/13 \times \$8.5m = \$1.28m$.

(Another national research funding body is the Alcohol Education Rehabilitation Fund, which funds research as well as practice. As it is only concerned with alcohol, it has been excluded).

State-based drug research funds

As a federation, Australia has eight jurisdictions that have autonomy over health care, policing, education and so on. Most states have publicly funded drug treatment centres – a number of which conduct research. Some of that research is funded by the Commonwealth government or through other competitive funding rounds noted above, but some is funded directly by the state government.

There is no central record of the state-based research funds. We endeavoured to identify the major state-based drug centres that conduct research, and source any state-funding from their annual reports. This task did not yield any meaningful information. At a minimum it would safe to suggest that about \$3m in annual research funds were supported by the state governments, but without details or corroboration of the funds, they are not further considered here.

Other funding sources (national) philanthropy

Philanthropy provides research funds to Australian researchers in the illicit drugs area.

It is impossible to get an estimate of the amounts of funds involved, although the largest philanthropic research grant (from the Colonial Foundation Trust, CFT) has been to the Drug Policy Modelling Program. The total amount of philanthropy dollars to DPMP is \$9.1m over 7 years, amounting to \$1.3million per annum.

4.2 Federal Research Budgets

Based on the above information and analysis of the research projects database that we constructed for this work, we have provided an estimate of the research funds for illicit drug research in Australia for the year 2006. This is provided in the table below.

Table 2 Approximate assessment of total drug research funding in 2006: ¹¹

Funding Body	Institution	Amount	%
NHMRC		\$9,963,217	59.3%
ARC		\$300,000	1.8%
NDLERF		\$1,000,000	6.0%
AGDA	NDARC ¹²	\$760,047	4.5%
	NDRI	\$918,719	5.5%
	NCETA	\$230,000	1.4%
	NCHECR ¹³	\$480,134	2.9%
	NCHSR	\$307,396	1.8%
Philanthropy	CFT	\$1,300,000	7.7%
AIC		\$1,280,000	7.6%
ANCD		\$250,000	1.5%
States		(not available)	0.0%
TOTAL		\$16,789,513	100%

Our total estimate of AUS\$16.8 million in the year 2006 is likely to be an underestimation, especially given that state core funding was not included. If our estimate is correct, then the national research centres total research funding of \$9.8m represents just more than more than half of the Australian illicit drug research occurring in Australia.

We calculate a per capita figure. The total population of Australia in 2006 was 20,700,000 (ABS). This means that the per capita illicit drug research expenditure was \$0.81 cents per person.

Unfortunately we cannot provide a comparator year, such as 2000 or 2001 as the data for the various sources are not available. However, one way of examining change over time is to look at the NHMRC research figures alone. NHMRC is a reasonable indicator of research activity as the trend in NHMRC is likely to be the same as that for government and other funding sources. In 2001, we estimated that the NHMRC funded \$3,468,975 in illicit drug research. In 2006 it was \$9,963,217. Over the five year period this represents an increase of almost three times as much. If we use the per capita measure as a metric, in 2001¹⁴ the per capita NMHRC spending was \$0.18 cents; for 2006 it was \$0.48 cents representing a real increase of more than 200%.

5 Model of prioritisation and coordination of research funding

See Sections 2 and 3 for the key structures involved at a national level. These can be categorised as:

1. Major research institutes (eg: NDARC, NDRI, NCETA, AIC)
2. Commonwealth government – through commissioned research to national centres
3. Competitive (non-drug-specific) funding bodies (NHMRC, ARC)
4. State-based governments funding research

¹¹ Drug company funded research has not been included, but some drug companies have invested in Australian-based research (eg Reckitt Benckiser).

¹² As noted earlier, 50% of the centre core funding was used to approximate illicit drug research

¹³ For the two HIV research centres, NCHECR and NCHSR, we endeavoured to estimate the proportion of their core funding that was illicit drug related. For NCHECR 13% of 2006 peer review pubs from NCHECR annual report were in the illicit drug area (based on title) so took 13% of core grant (\$3,693,345). For NCHSR the calculation was done in the same way. Core government funding was \$1,981,000 in 2006. Total peer pubs = 58, of which 9 = IDU.

¹⁴ ABS population estimate for Australia for the year 2001 was 19.4 million

Country Report – Australia**Alison Ritter**

The various levels of government in Australia are coordinated through the Intergovernmental Committee on Drugs (IGCD) which meets twice a year and discusses the major issues in drug policy for Australia. This committee comprises representatives from the health and law enforcement arenas. Although research is not necessarily a specific agenda item on the IGCD, the process of discussing key issues gives rise to reasonable concordance about priority areas. The NHMRC does operate independently (as a competitive funding body), and whilst it has a Strategic Research Committee, this committee has not concerned itself specifically with illicit drugs in the last 10 years.

While there have been national coordinating committees for illicit drug research in the past in Australia, none currently exist.

The Commonwealth Government has identified four broad research priorities for Australia:

- An environmentally sustainable Australia.
- Promoting and maintaining good health.
- Frontier technologies for building and transforming Australian industries.
- Safeguarding Australia.

The strategic directions of both the ARC and NHMRC, although they are competitive research funds are nevertheless influenced by the above list, as all publicly funded research in Australia should, in theory, contribute to one or more of these national priorities. For instance, the NHMRC finds its responsibility in 'Promoting and maintaining good health'.

For the NHMRC and ARC, illicit drugs are not separately prioritised as a topic of research, but included with all research. Hence, for the two largest Australian funds, there are no prioritisation mechanisms in illicit drug research.

However, as noted above, there are a small number of research funds in Australia that are focused on illicit drugs and have the capacity to set their own research agenda. These are able to fund research projects accordingly.

NDLERF

NDLERF Strategic Direction is determined by the NDLERF Board, and is reviewed regularly. As at February 2007 the NDLERF Research Priorities are:

- Supply Reduction:
 - Amphetamine Type Stimulants
 - Regulation of the hydroponic industry
 - Precursor chemicals and organised crime
- Alcohol
 - Policing
 - Strategies to reduce youth binge drinking
 - Liquor licensing.
- Law enforcement workforce development
- Prevention
- Performance Measurement
- Partnerships
 - Referral services
 - Cross agency co-operation
- Evaluation and Best Practise

ANCD

The ANCD commissions a number of research projects in consideration of the ANCD's role and work plan priorities, consultation with the sector, and where the ANCD requires further information in order to provide credible advice to government (AND Project Update June 2008). The ANCD Workplan 2007-2010 defines the current priority areas as:

- Population Groups
 - Young people
 - Indigenous.
 - Co-morbidity
 - Asia-Pacific
 - Families
- Key Sectors
 - Treatment
 - Capacity building
 - Public Health
 - Informing the Public
 - Law Enforcement
- Substances
 - Alcohol
 - Illicit Drugs
 - Emerging trends

AGDHA (NDARC, NDRI, NCETA)

Funding from the Commonwealth Department of Health and Ageing for the national drug research centres is provided via negotiation, and is non-competitive. The process for determining the research areas each year is not publically documented, but one assumes that it is driven by a combination of perceived priority areas on behalf of the Commonwealth contractors coupled with the research centres' own sense of priority areas and research interests.

6 Priorities for 2004 – 2006

As discussed above, Australia has a number of documented priority areas in illicit drug research. To summarise across all the funding bodies, these priorities appear to be:

- Epidemiology and surveillance
- Evaluation of effective interventions and research on new interventions
- Preventing drug abuse (through a priority of focussing on maintaining health and healthy communities)
- Law enforcement research (including policing, supply reduction)
- Special population groups (notably indigenous people and young people)

B Research structure

7 Key research structures involved at national level

The two major research centres are the key institutions dealing with illicit drug research in Australia. NDARC, located in Sydney at the University of New South Wales, is the largest research centre with an academic staff of around 30 and another 70 researchers, including research officers, assistants and PhD students. The vast majority hold degrees in Psychology. The centre collaborates with medical, psychology, social science and other schools of the University, and with other institutions and individuals in Australia and overseas. The NDARC mission is “to conduct high quality research and related activities that increases the effectiveness of the Australian and international treatment and other intervention responses to alcohol and other drug related harm”. There are four goals:

1. To improve our understanding of the nature and extent of alcohol and other drug-related harms to which treatment and other interventions should be directed;
2. To increase knowledge on the range and effectiveness of treatment and other interventions that is aimed at reducing forms of alcohol and other drug related harm;
3. To increase knowledge among treatment and intervention providers about which programs are effective and which individuals are most suited to them;
4. To increase the community's knowledge of appropriate and effective treatment and other intervention programs for alcohol and drug-related problems.

NDRI, located in Perth at Curtin University has a staff of around 50 people inclusive of academics, research assistants and research students. Most of the staff have degrees in Psychology or the social sciences. NDRI aims to conduct research that contributes to the formation of more effective policy and practice in Australia in relation to the prevention and reduction of harmful alcohol and other drug use. The NDRI mission is “to conduct and disseminate high quality research that contributes to the primary prevention of harmful drug use and the reduction of drug related harm”. Key research priorities for NDRI are:

1. National monitoring of alcohol and other drug consumption patterns and related harm;
2. Partnerships in the prevention of alcohol and other drug misuse among Indigenous Australians;
3. Prevention of the spread of blood-borne viruses and other harm among injecting drug users;
4. The impact of educational, legislative and regulatory strategies to minimise alcohol and other drug-related harm;
5. Development and evaluation of more effective school drug and education programs;
6. Development and evaluation of more effective community drug prevention programs;
7. Identification of fundamental, strategic and developmental research questions in the area of primary prevention of harmful drug use; and
8. Investigation of the influence of structural determinants and the social contexts of drug use on the implementation of strategies designed to reduce and prevent harmful drug use.

Both the national research centres are located within Universities. There are other research centres in Australia concerned with illicit drug research. There are two national HIV research centres in Australia: the National Centre for HIV Epidemiology and Clinical Research (NCHECR) and the National Centre in HIV Social Research (NCHSR). The National Centre in HIV Epidemiology and Clinical Research (NCHECR) is recognised internationally as a research leader in the field of HIV/AIDS. Studies around other blood borne viruses, particularly hepatitis C and sexually transmitted infections are also part of the Centre's

research profile. The NCHECR undertakes research that focuses on epidemiology, clinical research and clinical trials, in collaboration with other research centres, government departments, the pharmaceutical industry, community groups, health clinics and general practitioners. It receives core funding from the Commonwealth government (in 2006 \$3,693,000) plus pharmaceutical company income and competitive grants (total 2006 \$14,361,000¹⁵). Of course, the vast majority of this is not related to illicit drug use, as they represent a very small minority of HIV cases in Australia. The National Centre in HIV Social Research (NCHSR) has undertaken a program of social research related to human immunodeficiency virus (HIV), the acquired immune deficiency syndrome (AIDS), sexually transmissible infections and hepatitis C. The total 2006 funding for the centre was \$3,639,136 of which almost \$2m was from direct government sources.

State governments also fund research centres: for example in Victoria Turning Point Alcohol and Drug Centre and in South Australia DASSA. As these types of centres are also service delivery agents, we were not able to obtain sufficient information on research funding to be able to explicitly include them in our calculations.

Appendix B provides a full list of research organisations that were in receipt of funds to conduct illicit drug related research in Australia.

The Australasian Professional Society on Alcohol and Drugs (APSAD) is the key society involved in research dissemination through its two flagship activities: an annual scientific conference which attracts about 700 registrants each year; and its journal, the Drug and Alcohol Review (DAR). The DAR is 27 years old, and has an impact factor of 1.4. It is one of the major outlets for Australian illicit drug research and has a strong international reputation. There are no other research societies in Australia that are specific to illicit drugs, although societies like the Australian Public Health Association and the Australian Criminology Society are of course engaged in illicit drug research dissemination amongst other topics.

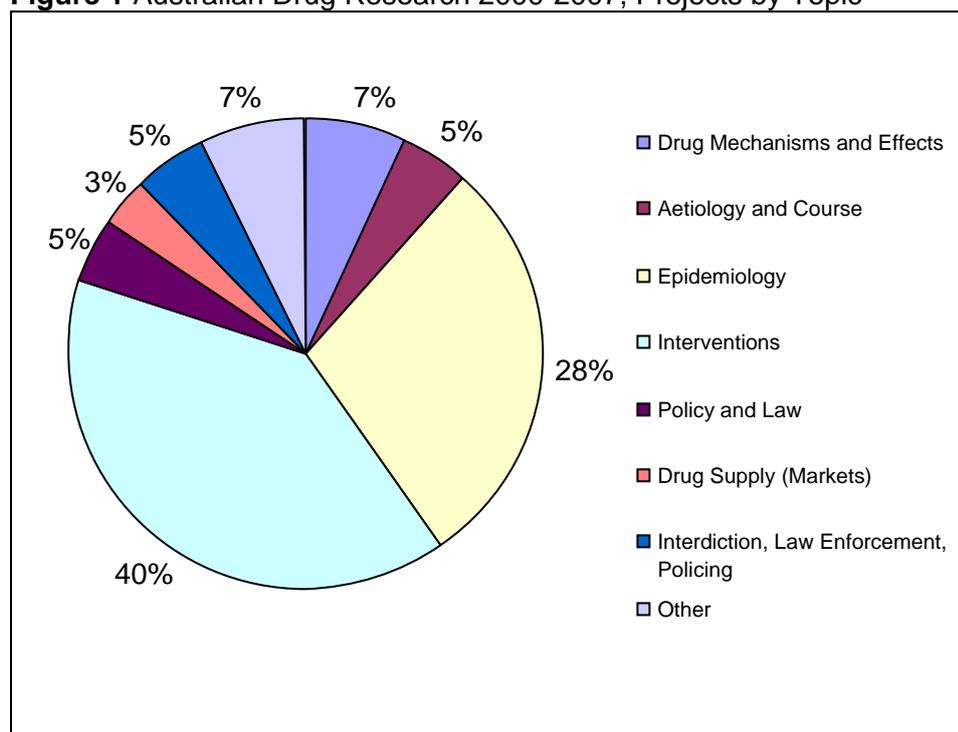
8 Key research topics and areas / trends 2000 – 2007

Method: we sourced the titles of all research projects documented in Australia in the illicit drug area from 2000 to 2007¹⁶. A total of 707 projects were sourced across the major funding bodies. We cannot guarantee that we have sourced every research project, however the total of 707 in 7 years amounts to approximately 100 illicit drug research projects per annum funded in Australia (the projects were identified by the year in which funding was received, not the year of activity, which in many cases extends over a number of years). We then used the provided categories to code each project based on the title provided.

The result is represented in the pie chart below.

¹⁵ Taken from 2006 Annual Report data (summed by us, approx).

¹⁶ Data on research projects were taken from the NHMRC published figures, ARC reports, individual institution websites and annual reports, and the Alcohol and Other Drugs Council of Australia's Register of Drug and Alcohol Research (RADAR), which is a register of drug-related research that takes place in Australia. Entering research onto RADAR is a voluntary process and must be undertaken by researchers themselves. The data therefore may not be exhaustive.

Figure 1 Australian Drug Research 2000-2007, Projects by Topic

As can be seen the vast majority of the research is in the area of interventions research (40%), although this includes evaluation research and clinical practice research (sometimes not traditionally defined as intervention research).

Each topic area is discussed in turn.

- **Drug mechanisms, effects and methods of detection**

Research projects in this category included how drugs work on the brain, neurobiological research and acute and long term physical effects of drug use. Research has focused mostly on effects of opiates, MDMA/ecstasy and cannabis. Research on brain functioning and neuropsychology were noted. However there was minimal research on genetics and animal-based neurosciences research. Seven percent of all Australian research between 2000 and 2007 was in this topic domain. Examples of the types of projects conducted include:

1. How do heroin-related drugs affect brain systems that cause addiction?
2. The action of endocannabinoids in the brain on body weight
3. Memory deficits in adolescent and adult cannabis users.
4. Cannabis "re-intoxication": effects of THC release from fat
5. Standardisation of prepulse inhibition of the startle reflex
6. The effects of 'Ecstasy' in humans.
7. How the brain controls relapse to drug addiction
8. Determinants of Expression, Assembly and Function of the Noradrenaline Transporter
9. Age-dependent effects of cannabinoids on emotion, cognition and vulnerability to addiction
10. The acute and long-term effects of MDMA ("Ecstasy") and methamphetamine
11. Pharmacogenetics of Opioid Drugs
12. Investigation of the brain changes associated with schizophrenia and early and late onset long-term cannabis use.

13. Neurocellular basis of drug addiction
14. The effects of cannabis on Neuropsychological functioning in schizophrenia.
15. Neural links between drug addiction and stress

- **Aetiology and course**

This area includes research on risk factors, the determinants of drug use, and at-risk populations. Structural determinants of health, pathways to addiction and individual risk factors for drug use were covered. There has been a particular focus on the drug use of young people. It represents 5% of research projects in Australia between 2000 and 2007. Examples included:

1. Pathways to ecstasy use in young adults: anxiety, depression or behavioural deviance?
2. Initiation and transition to injecting drug use among young people
3. Characterising the trajectory of non-medical use of prescription drugs from a poly-substance use perspective
4. The risk factors for ecstasy and related drug overdose
5. A study to determine the prevalence & impact of mental illness and HIV among male Injecting Drug Users (IDU) in Vietnam
6. Examination of injecting drug use life course and estimating prevalence and health consequences of a dynamic population
7. Causes And Risk Factors For Death Among Released Prisoners In Queensland
8. Impact of parental substance use on infant development and family functioning
9. Parental marital conflict and marital change: effects on child/adolescent and young adult developmental outcomes

- **Epidemiology**

The second largest area of Australian drug research in 2000-2007 was epidemiological and surveillance research (28%): studies of prevalence of drug use and associated harms. A large amount of research is focussed on heroin use and associated harms such as Hepatitis C. This area includes monitoring programs such as the Injecting Drug Reporting System which looks for emerging trends in the population of drug users. Risk behaviours and morbidity and mortality are also covered in the epidemiological work. Examples of research in this area include:

1. HIV/HCV clusters in NSW prisons
2. Cocaine use among heroin users in NSW : prevalence and related harms
3. Identification of the incidence of high prevalence mental health disorders
4. Mortality among opioid dependent persons in pharmacotherapy, NSW 1985-2006
5. Client satisfaction and risk behaviours of the users of syringe dispensing machines
6. Ecstasy and related Drugs Reporting System (EDRS)
7. Emerging trends in drug use and high risk behaviours among the homeless
8. The establishment of a cohort of substance using pregnant women and their babies
9. A qualitative field study of users of performance and image enhancing drugs (PIEDs)
10. Demographics, circumstances, toxicology and major organ pathology of psychostimulant-related deaths in Australia
11. Case control comparison of autopsy pathology of psychostimulant deaths, heroin deaths, and a non-drug using comparison group
12. Systemic disease among cases of fatal opioid toxicity

- **Intervention**

The most common type of Australian illicit drug research is in interventions. This section includes research on the health-related interventions, including treatment, prevention and harm reduction. It does not include law enforcement interventions which have been placed in the 'interdiction' category. There has been a large amount of research in particular on harm reduction interventions aimed at injecting drug users. The amount of research into indigenous interventions is small but has grown more recently. There is also a focus on treatment for mental health issues, with greater emphasis on the links between drug use and mental health. Randomised controlled trials are not infrequent but there is more clinical/treatment research concerned with best practice, evaluation and clinical guidelines development. Examples include:

1. Incorporating harm reduction measures into abstinence-based therapeutic communities
2. Randomised controlled trial of an educational intervention designed to prevent the transmission of Hepatitis C amongst injectors
3. Steps Through Amphetamines: cognitive behaviour therapy (CBT) for regular amphetamine use and depression: a stepped care approach
4. Evaluation of brief interventions in primary care
5. Identification of an AOD screening tool for the Service Coordination Tool Template (SCTT)
6. Monitoring the implementation of combination buprenorphine-naloxone (suboxone)
7. Integrating treatment for alcohol use problems and comorbid PTSD
8. Benzodiazepines: Treatment Capacity Building project
9. Expansion of evidence-based drug treatment in developing countries.
10. From GO to WHOA dissemination
11. The efficacy of an intervention for post traumatic stress disorder (PTSD) among illicit drug users
12. Randomised control trial of monoamine precursors for the management of psychostimulant withdrawal
13. Identify current treatment provided to ecstasy, GHB and ketamine users, barriers to seeking treatment and ways to improve the current service response.

- **Policy/Legal frameworks**

Most of the research into drug policy has focused on evaluations of current drug laws and regulations, and any improvements or changes that might be possible. A small amount of economic evaluation has been completed. This area represents 5% of illicit drug research activity in Australia. Examples include:

1. Developing a common metric to evaluate policy options (the Harm Index), Drug Policy Modelling Program
2. Development of the National Amphetamine-Type Stimulants Strategy - 2007-2009
3. An evaluation of the impact of changes to cannabis law in WA on cannabis use, the drug market, law enforcement, knowledge and attitudes, and cannabis-related harms
4. The policy response to Indigenous petrol sniffing--and how to improve it
5. The impact of reducing criminal penalties for cannabis use on serious road injury in Australia
6. Developing a model to assess the economic consequences of cannabis policy options
7. Responding to illicit drugs in Australia: towards evidence-based strategic policy.
8. The governance of illicit synthetic drugs

9. Coordinating illicit drug policy in Australia: structures, processes and insights into coordination at the national level
10. Harm minimisation, zero tolerance and beyond : the politics of illicit drugs in Australia.

- **Drug Supply**

This area includes all work on drug markets, including research on prices and purity. The majority of work has been undertaken on the heroin market in Australia which experienced a 'market shock' around 1999-2000, however the exact reason(s) for this event is not yet fully understood. Examples of research within this category include:

1. The causes, effects and implications of the heroin shortage in NSW, SA and Victoria
2. Application of new DNA markers for forensic examination of Cannabis sativa seizures –
3. Containing ecstasy: analytical tools for profiling an illegal drug market
4. Impact of the heroin shortage: Additional research
5. The methamphetamine situation in Australia: A review of routine data sources
6. The causes, course and consequences of the heroin shortage in Australia
7. The experiences of incarcerated high-level heroin importers: A study of the mechanics of cross-border trafficking of heroin
8. An investigation of retail heroin markets from a public health perspective
9. Structural analysis of the Australian heroin drought
10. Characteristics and dynamics of cocaine supply and demand in Sydney and Melbourne
11. The impact of social networks and not-for-profit illicit drug dealing on illicit drug markets in Australia
12. Social, cultural and economic processes in illicit drug markets and their public health consequences.
13. Cocaine markets study.

- **Interdiction / law enforcement research**

This includes research related to law enforcement interventions and represented 5% of the projects in illicit drug research. Areas of focus include Indigenous populations, policing strategies and practices, and evaluations of diversion programs and drug courts. Examples of research projects in this category include:

1. North Queensland Drug Court Evaluation
2. SimDrugPolicing : an adaptation of SimDrug to explore three policing scenarios
3. South East Queensland Drug Court evaluation
4. Evaluation of the Lismore Magistrates Early Referral into Treatment (MERIT) pilot program
5. Estimating the short-term cost of police time spent dealing with alcohol-related crime in NSW
6. Good practice framework - Policing illicit drugs in rural & remote local communities
7. The policing implications of cannabis, amphetamine & other illicit drug use in Aboriginal & Torres Strait Islander communities
8. Policing, volatile substance misuse, and Indigenous Australians
9. Developing and implementing a performance measurement framework for drug law enforcement in Australia
10. The role of police in preventing and minimising illicit drug use and its harms
11. Police Drug Diversion Liaison Project

12. Policing implications of illicit drug use in Aboriginal and Torres Strait Islander communities
13. The role of police in preventing and minimising illicit drug use and its harms
14. Problem-oriented and partnership policing: LEAPS evaluation

- **Other**

Includes everything not elsewhere classified (7%). This category was largely workforce development research, ethics, attitudes and social meanings research. Examples include:

1. An investigation of alcohol and other drugs in the Australian workplace
2. Alcohol and Drugs in the Workplace Project with South Australia
3. Investigating mentoring activities in the alcohol and other drugs field
4. An examination of the critical workforce development needs of AOD specialist workers
5. Young injecting drug users, embodied identities and social worlds: an ethnographic study
6. Housing stability over two years and HIV risk among newly homeless youth
7. Loss and its consequences among town campers in Alice Springs: the role of alcohol and other drugs
8. Social meanings of inhalant use in Melbourne: implications for policy and intervention
9. Evaluation of Hepatitis C training program
10. Attitudes towards illicit drug users: development of a psychological model of attitude formation and change
11. A review of the evidence, impacts and alternatives to drug testing in schools
12. Aviation drug and alcohol testing review.

9 Major research collaboration in the drug field with EU partners

There is no systematic way to source EU collaborations across Australia. NDARC is the Secretariat of the Reference Group to the United Nations on HIV and injecting drug use. In South Australia, DASSA is a WHO Collaborating Centre. Individuals have collaborations with the EU.

C Evaluation

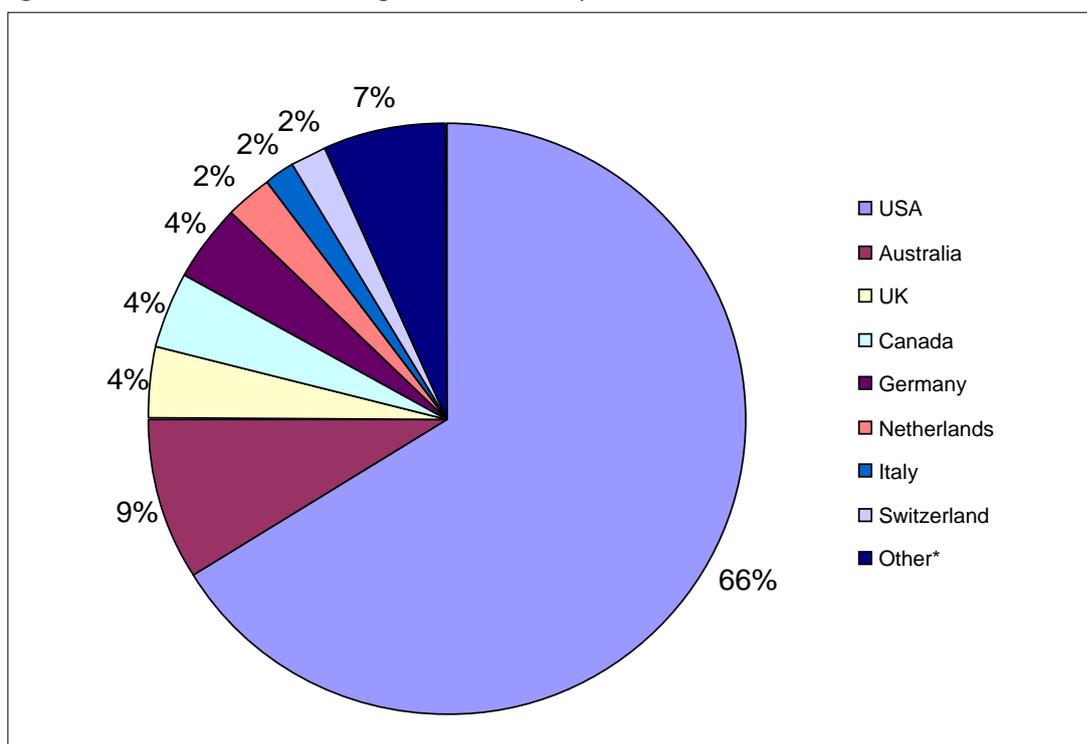
10 Evaluation of the country situation by the author¹⁷

1. Overall, we think that Australia is doing very well with its illicit drug research. It has been commented by others that Australia is “punching above its weight” in terms of drug research. We sought some evidence to support this assertion, and so examined research publications from Australia relative to other countries. We chose the two top ranking journals: “Addiction” (UK based) and “Drug and Alcohol Dependence” (USA based) and examined the relative proportion of authors from Australia compared to other countries. The results are provided in the two pie charts overleaf. It can be seen (Figure 2) that for the journal “Drug and Alcohol Dependence”, 66% of the author affiliations are from USA, but Australia ranks second with 9%, followed by the UK with 4%. We are the second most published nation in that journal. Likewise, for the journal “Addiction” (Figure 3), the USA is the largest author affiliation at 41%, then the UK with 17% and Australia is placed third at 12%. Given our population (21m people) and our illicit drug research spending (approx \$16.8m p.a. in 2006) it seems that we are indeed “punching above our weight”.
2. Priority areas: in the past there has been concern that Australia does not invest in interventions research. It would appear that this is no longer the case, with 40% being ‘interventions’ research in the broadest sense. There does seem to be under investment in the basic sciences relative to epidemiology and interventions research.
3. Investigator-driven vs government-initiated research: the balance between these two is about 50% each (assuming our method has captured the important funding sources). There is not necessarily an ideal ratio between these two types of research funding. Some argue that more investigator-driven research is important because that type of research is more likely to generate new knowledge and support future researchers. On the other hand, commissioned research is more likely to address immediate policy and practice problems and reflect the priorities of government and service providers and as such, is potentially more likely to actually improve the situation regarding illicit drugs¹⁸.
4. The total investment – it is difficult in the absence of any comparators to know what to make of the approximate \$16.8m in research funds per annum. The Australian population in 2006 was 20.7m so per capita spending was \$0.81 cents per annum per Australian. Relative to overall Australian investment in health research it is a very small amount. The NHMRC annual fund is \$539m, of which \$9.9m is invested in illicit drugs research, representing 1.8% of the total competitive health research investment.

¹⁷ The statements in this section represent the views of the author only and not of any groups or institutions with which the author is affiliated.

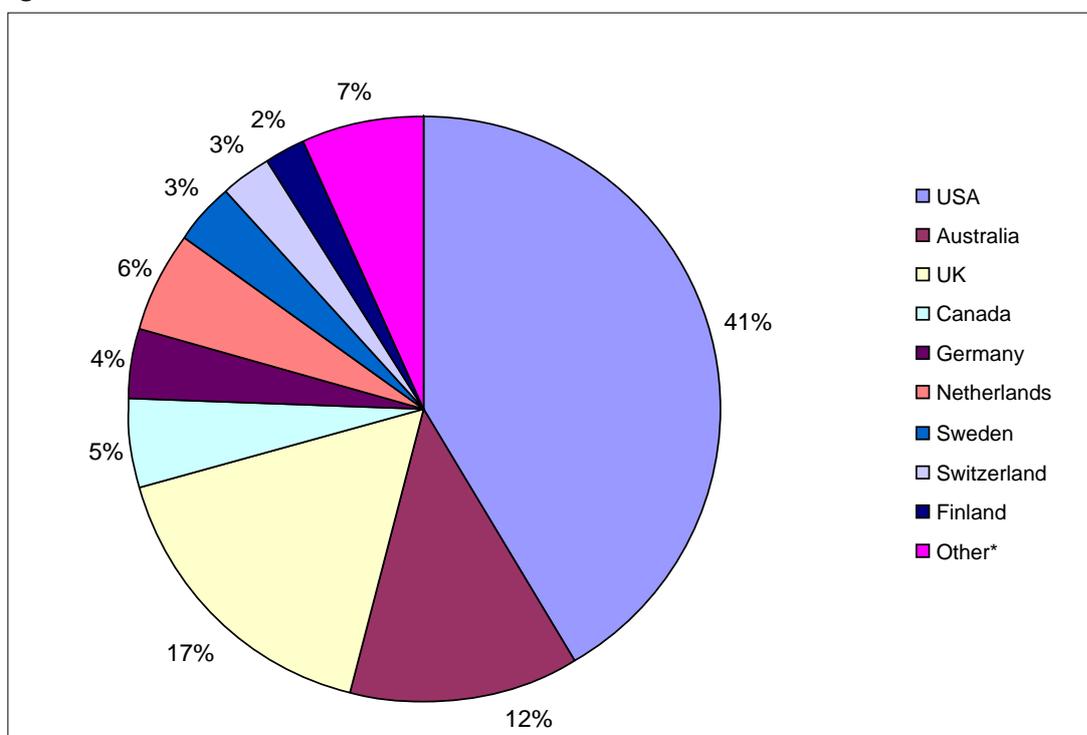
¹⁸ Neither of these points speak to the issue of the translation of research into policy and practice.

Figure 2 Author Affiliation - Drug and Alcohol Dependence 2004 - 2007



Others = Sweden, China, Japan, Brazil, Russia, France, Belgium, Poland, Greece, Finland, Portugal

Figure 3 Author Affiliation - Addiction 2004 - 2007



Others = China, Japan, Brazil, Russia, France, Italy, Belgium, Poland, Greece, Portugal

Appendix A: Funding sources for Australian illicit drug research

National competitive funds

Academy of the Social Sciences in Australia
Alcohol Education and Rehabilitation Foundation (AERF)
Australian National Council on Drugs
Australian Research Council
Criminology Research Council
National Drug Law Enforcement Research Fund (NDLERF)
National Health and Medical Research Council

Government-based funds

ACT Health
Australia. Dept. of Education, Science and Training
Australia. Dept. of Families, Community Services and Indigenous Affairs
Australia. Dept. of Finance and Administration
Australia. Dept. of Health and Ageing
Australia. Dept. of Health and Ageing. Hepatitis C Section
Australia. Dept. of Veterans' Affairs
Australian Division of General Practice
Australian National Council on AIDS, Hepatitis C, and Related Diseases
City of Melbourne
Law and Justice Foundation of NSW — Grants Program
National Crime Prevention Programme
National Illicit Drug Strategy
New South Wales. Alcohol and Other Drugs Service
New South Wales. Attorney General's Department
New South Wales. Centre for Drug and Alcohol
New South Wales. Commission for Children and Young People
New South Wales. Dept. of Community Services
New South Wales. Dept. of Corrective Services
New South Wales. Dept. of Education and Training
New South Wales. Dept. of Health
New South Wales. Office of Drug and Alcohol Policy
New South Wales. Roads and Traffic Authority (RTA)
Northern territory government
Northern Territory. Dept. of Health and Community Services
NSW government
Office for Aboriginal and Torres Strait Islander Health (OATSIH)
Premier's Drug Prevention Council
Prostitution Licensing Authority
Queensland Government
Queensland Health
Queensland Health. Public Health Services Branch
Queensland Police Service
Queensland Treasury
Queensland. Commission for Children and Young People
Queensland. Dept. of Justice and Attorney-General
Road Safety Council of Western Australia
South Australia government
South Australia. Attorney-General's Department
South Australia. Dept. of Health
South Australia. Dept. of Human Services

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South Australian government
South Western Sydney Area Health Service
Sydney South West Area Health Service
Tasmanian Government
Tasmanian State Government
VicRoads
Victoria. Dept. of Human Services
Victoria. Dept. of Human Services. Drugs Policy and Services Branch
Victoria. Dept. of Justice
Victorian government
Western Australia. Dept. of Health
Western Australia. Dept. of Health. Division of Mental Health
Health promotion Foundations
Health Promotion Queensland
Healthway (Western Australia)
Victorian Health Promotion Foundation
Philanthropy
Colonial Foundation
Ian Potter Foundation
Macquarie Bank Foundation
Australian Rotary Health Research Fund
Philanthropy Australia
R.E. Ross Trust
Telstra Foundation

Other

Australian Universities
beyondblue
Cooperative Research Centre for Aboriginal Health
Cooperative Research Centre for Discovery of Genes for Common Human Diseases

International (fund research in Australia)

National Institute of Drug Abuse
National Institute of Mental Health
National Institute on Alcohol Abuse and Alcoholism (USA)
National Institutes of Health
New Zealand Ministry of Youth Affairs
New Zealand Police
Reckitt Benckiser
UNODC
World Health Organization

Appendix B: Research bodies that receive funds/conduct research on illicit drugs in Australia

AAMI
Aboriginal Drug and Alcohol Council (SA) Inc.
Alcohol and other Drugs Council of Australia
Anglicare Tasmania
Australian Capital Territory. Dept. of Health. Alcohol & Drug Program
Australian Catholic University
Australian Centre for Addiction Research
Australian Customs Service
Australian General Practice Network
Australian Injecting and Illicit Drug Users' League (AIVL)
Australian Institute of Aboriginal and Torres Strait Islander Studies
Australian Institute of Criminology
Australian Institute of Family Studies
Australian Institute of Health and Welfare
Australian National Council on Drugs
Australian National University
Burnet Institute
Canterbury Hospital
Catherine Spooner Consulting
Centre for Accident Research and Road Safety - Queensland (CARRS-Q)
Centre for Adolescent Health
Centre for Mental Health Services Research (Western Australia)
Centre for Youth Drug Studies
Charles Darwin University
Community Restorative Centre
Curtin University of Technology
Deakin University
Dept of Transport and Regional Services
Drug and Alcohol Multicultural Education Centre
Drug and Alcohol Services South Australia (DASSA)
DRUG ARM Australasia
Drug Policy Modelling Program
Edith Cowan University. Child Health Promotion Research Unit
Flinders University
Griffith University
Inner East Community Health Service (Victoria)
James Cook University
Jesuit Social Services
King Edward Memorial Hospital
La Trobe University
Macfarlane Burnet Institute for Medical Research and Public Health
Macquarie University
Melbourne Division of General Practice
Mental Health Research Institute of Victoria
Menzies School of Health Research
Mission Australia
Monash University
Murdoch Childrens Research Institute
National Centre for Education and Training on Addiction
National Centre for Epidemiology and Population Health

Country Report – Australia**Alison Ritter**

National Centre in HIV Epidemiology and Clinical Research
National Centre in HIV Social Research
National Drug and Alcohol Research Centre
National Drug Research Institute
New South Wales. Bureau of Crime Statistics and Research
Northern Drug Dependence Centre, Chiang Mai Province, Thailand
Odyssey Institute of Study
ORYGEN Research Centre
Perth Royal Hospital. Emergency Dept.
Queensland Alcohol and Drug Research and Education Centre
Queensland Institute of Medical Research
RMIT University
Royal Adelaide Hospital
Royal North Shore Hospital
Royal Women's Hospital (Carlton). Women's Alcohol and Drug Service
SANE Australia
Siggins Miller Consultants
Social Research & Evaluation Pty Ltd
South Eastern Sydney and Illawarra Area Health Service
South Sydney Youth Services
St Vincent's Mental Health Service. NEXUS Dual Diagnosis Service
Swinburne University
Sydney South West Area Health Service
The Australia Institute
The Cancer Council Victoria
Turning Point Alcohol & Drug Centre
University of Adelaide
University of Melbourne
University of New South Wales
University of Newcastle
University of Queensland
University of Sydney
University of Tasmania
University of Tasmania. Dept. of Rural Health
University of the Sunshine Coast
University of Western Australia
University of Wollongong
Victoria Police
Vietnamese Community in Australia (SA Chapter)
Western Australia. Drug and Alcohol Office
Western Australian Alcohol and Drug Authority
World Health Organization Collaborating Centre for Research in the Treatment of Drug and Alcohol Problems
Youth Substance Abuse Service (YSAS)

Appendix 4.1

Overall List of Research Projects

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Appendix 4.1**1. Austria**

- Nucleus Accumbens Acetylcholine and Substance Dependence (University Hospital of Psychiatry, Division of Neurochemistry, of the Medical University Innsbruck; Gerald Zernig-Grubinger)
- Viennese Drug Policy of the last 30 Years Seen by its Addressees and Actors (Institute for the Sociology of Law and Criminal Sociology; Irmgard Eisenbach-Stangl, Arno Pilgram)
- ESPAD 2003 (Institute for Social and Health Psychology, ISG; Ludwig-Boltzmann-Institut für Suchtforschung, LBI Sucht)
- HBSC 2001/2002 (Ludwig Boltzmann Institute for the Sociology of Health and Medicine, University of Vienna)
- HBSC 2005/2006 (Ludwig-Boltzmann-Institute for Health Promotion Research, University of Vienna)

2. Belgium

- Conquest (CUSTOM AND EXCISE ADMINISTRATION)
- Residential integrated treatment of patients with a double diagnosis (Psychiatric Centre Sleidinge; Prof. dr. Sabbe B.; Universiteit Antwerpen)
- Cocaine and amphetamine type stimulants within the European prison systems (Ghent University, Faculty of Law/Criminology, Tom Decorte)
- Developments in the use of mdma (ecstasy) and other synthetic drugs in Flanders (Belgium) (Ghent University, Faculty of Law / Criminology, Tom Decorte)
- The development of patterns of cocaine use: A 5 year follow-up study of 111 experienced cocaine and crack users in Antwerp (Belgium) (Ghent University, Faculty of Law/Criminology, Tom Decorte)
- Patterns of cannabis use in Flanders (Ghent University, Faculty of Law/Criminology, Tom Decorte)
- Drug related crime: Definitions and measurement (INSTITUTE FOR INTERNATIONAL RESEARCH ON CRIMINAL POLICY; COLMAN Charlotte)
- INCANT International Cannabis Need of Treatment (Department of Psychiatry, Brugmann Hospital, Brussels)
- ESPAD 2003 (Department of Developmental and Life Span Psychology at the Vrije Universiteit Brussel)
- HBSC 2001/2002 (Department of Public Health, University of Ghent; Université Libre de Bruxelles)

Appendix 4.1

- HBSC 2005/2006 (Department of Public Health, University of Ghent, Université Libre de Bruxelles)

3. Bulgaria

- ESPAD 2003 (National Centre of Public Health in Sofia)

4. Cyprus

- Pancyprrian survey on the general population for smoking, alcohol and other psychoactive substances (Research Center at Intercollege, Nicosia)
- ESPAD 2003 (Ministry of Education and Culture, KENTHEA)
- The use of licit and illicit substances by students at Lyceums in Cyprus (Educational Psychology Services of the Ministry of Education and Culture; Papadopoulos M., Constantinopoulos K.)
- Juvenile Delinquency (Research and Development Center of Intercollege)
- Comparative Research for the use of toxic substances by 17-18 year old adolescent males in Cyprus, for the years 1998-2003 as well as the factors that influence the use of toxic substances. Conclusions derived from two successive pancyprian representative researches (Athalassa Hospital, Nicosia; V. Hadjivassilis, C. Panagiotopoulos)

5. Czech Republic

- Impact Analysis Project of New Drugs Legislation in the Czech Republic (PAD study) (ResAd, s.r.o.)
- Evaluation of Drug Measures and Programmes Implemented in the Central Bohemia Region (NTI Consulting, s.r.o., Liberec)
- ESPAD 2003 (Prague Psychiatric Centre, 3rd Faculty of Medicine, Charles University in Prague)
- Prevalence Estimates of Problem Drug Users (National Monitoring Centre for Drugs and Drug Addiction)
- Sample Survey on Health Status and Lifestyle of the Population of the Czech Republic Focusing on Drug Abuse (Institute of Health Information and Statistics of the Czech Republic)
- Cohort mortality study of drug users in the Czech Republic (Czech National Monitoring Centre for Drugs and Drug Addiction)
- Animal study based on studying mechanism of action of new synthetic drug 2C-B and comparison with common psychotropic substances (LSD, MDMA, psilocin and mescaline): potential risks, implications for prevention and treatment of intoxications (Psychiatrické centrum Praha 8 - Bohnice; MUDr. Tomáš Páleníček)

Appendix 4.1

- Institutional Treatment of Severe Forms of Alcohol and Drug Dependence on Women: Analysis of Treatment Process and of Outcome at One -Year Follow –Up (Psychiatrické centrum Praha 8 - Bohnice; PhDr. Ladislav Csémy)
- HBSC 2001/2002 (Prague Psychiatric Centre; University Hospital, Charles University, Prague; Medical School, Charles University, Prague; National Institute of Public Health, Prague)
- HBSC 2005/2006 (National Institute of Public Health, Prague Psychiatric Clinic VFN, Prague)
- The influence of a psychosocial factors and setting on acute and long-term effects of cannabis use from the view point of the psychiatric, psychological and social risks (Palacky University, Olomouc, Michal Miovsky)

6. Denmark

- The HMS survey (Institute of Governmental Research [Anvendt Kommunal Forskning – AKF])
- The methadone project (Aarhus University Centre for Alcohol and Drug Research)
- The Ringsted Project (Kopenhagen University - Faculty of Law)
- Infectious diseases among drug users (Odense University Hospital; Peer B. Christensen)
- Prison projects (Aarhus University - Centre for Alcohol and Drug Research)
- Integrated services aimed at dual diagnosis and optimal recovery from addiction (ISADORA) (COUNTY OF AARHUS, DENMARK / Niels AALUND (Mr); PSYCHIATRIC SERVICES DEPARTMENT OF EDUCATION)
- Pregnant women after inpatient treatment for drug addiction (Centre for Alcohol and Drug Research, University of Aarhus; Postdoc Dorthe Hecksher, Helle Dahl)
- Status for the treatment guarantee in substance misuse treatment (Centre for Alcohol and Drug Research, University of Aarhus; Director Mads Uffe Pedersen)
- Treatment for young people with substance misuse problems - before the municipal reform (Centre for Alcohol and Drug Research, University of Aarhus; Assistant Professor Leif Vind, Research Assistant Katrine Finke and Director Mads Uffe Pedersen)
- From Social Policy To Drug and Alcohol Police (Centre for Alcohol and Drug Research, Aarhus, Bagga Bjerge)
- Methadone and everyday life. An ethnographic study of Danish drug users' and their experiences with methadone maintenance treatment (Centre for Alcohol and Drug Research, Aarhus, Helle Dahl)
- ESPAD 2003 (Department of Epidemiology and Social Medicine, Aarhus University; Department of Social Medicine, Aalborg Hospital)
- HBSC 2001/2002 (Department of Social Medicine, University of Copenhagen)

Appendix 4.1

- HBSC 2005/2006 (Institute of Public Health, University of Copenhagen)

7. Estonia

- ESPAD 2003 (Institute of International Studies, Tallinn Pedagogical Institute)
- HBSC 2001/2002 (National Institute for Health Development, Tallinn)
- HBSC 2005/2006 (The National Institute for Health Development, Tallinn)

8. Finland

- Research into Problem Use (National Research and Development Centre for Welfare and Health (STAKES), National Public Health Institute, Ministry of the Interior)
- Research into drugs and alcohol (National Research and Development Centre for Welfare and Health (STAKES), National Public Health Institute, Ministry of the Interior)
- A study into the medical treatment of amphetamine addicts (Helsinki Deaconess Institute)
- CHAMP - Collaborative Harmonisation of Methods for Profiling of Amphetamine Type Stimulants (National Bureau of Investigation, Laura AALBERG)
- ESPAD 2003 (National Research and Development Centre for Welfare and Health (STAKES))
- HBSC 2001/2002 (Department of Health Sciences, University of Jyväskylä)
- HBSC 2005/2006 (Department of Health Sciences, University of Jyväskylä)

9. France

- OSIAP – Ordonnances Suspectes Indicateur d'Abus et de Pharmacodépendancen (CEIP de Toulouse - Service de Pharmacologie Clinique; Maryse Lapeyre-Mestre)
- Characterisation and role of interactions between opioid and cannabinoid systems (CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE; Dr. Florence Noble)
- Synaptic plasticity and long-term depression in the nucleus accumbens after in vivo exposure to addictive drugs (EQUIPE AVENIR INSERM INSTITUT MAGENDIE; Olivier Manzoni)
- Genetic and hormonal influences on reward processing: insights from brain imaging in humans (CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE; Dr. Jean-Rene Duhamel)
- Dopamine d3 receptor ligands : a novel approach to the treatment of drug addiction (INSTITUT NATIONAL DE LA SANTE ET DE LA RECHERCHE MEDICALE (INSERM); Prof. Claude Griscelli)

Appendix 4.1

- CRIMPREV - Assessing Deviance, Crime and Prevention in Europe (Centre National de la Recherche Scientifique, René LÉVY)
- INCANT INternational CAnnabis Need of Treatment (INSERM)
- ESPAD 2003 (Institut National de la Santé et de la Recherche Médicale (INSERM); Observatoire Français des Drogues et des Toxicomanies (OFDT))
- HBSC 2001/2002 (Service médical du Rectorat de Toulouse)
- HBSC 2005/2006 (Service Médical du Rectorat de Toulouse; INSERM U558, Association Développement HBSC)
- High Frequency Stimulation of the Subthalamic Nucleus as a treatment for addictions: studies in the Parkinsonian patient and in the rat (CNRS Centre National de la Recherche Scientifique, Christelle Baunez)
- Effects of prenatal exposure to addictive drugs on the brain function : neurochemical mechanisms and behavioral effects (INSERM)
- Investigation of Associations between Psychoactive Substance Use and Violence in Children and Adolescents (Laboratoire de Psychologie, Université Victor Segalen Bordeaux, Professeur Grégory MICHEL)
- In vivo functional imaging of the mu opioid receptor: adaptations related to drug dependence (IGBMC Institut de Génétique et de Biologie Moléculaire et Cellulaire, Brigitte Kieffer)
- To Become Free Again? Ethics and Motivations of Some Ways of Recovery from Addiction (CERSES, CNRS, Université Paris Descartes, Patrick Pharo)

10. Germany

- The Federal German demonstration project on heroin-supported treatment of people dependent on opiates (Heroin Trial) (Centre for Interdisciplinary Research at the University of Hamburg (ZIS); Prof. Dr. Dieter Naber, Prof. Dr. Christian Haasen)
- Early family therapy treatment for people addicted to opiates – a comparative cross-sectional and longitudinal study (University Clinic Hamburg- Eppendorf: Clinic and Polyclinic for Psychiatry and Psychotherapy; Prof. Dr. Rainer Thomasius)
- Optimisation of substitution-supported therapy by indicative assignment of substitute substances and psychosocial treatment components of patient profiles (OSTD) (IFT Munich; Dr. Heinrich Küfner)
- Cost-Benefit and Risk Appraisal of Substitution Treatments (COBRA) (ASAT Addiction Research Association; Prof. Dr. Hans-Ulrich Wittchen (TU Dresden))
- CANDIS – “Modular Therapy for Cannabis Disorders” (Institute for Clinical Psychology and Psychotherapy, TU Dresden; Dr. Eva Hoch)

Appendix 4.1

- Epidemiology of consumption, abuse and dependence on licit and illicit drugs among adolescents and young adults" (EDSP) (TU Dresden; Prof. Dr. Hans Ulrich Wittchen, Dr. Rosalind Lieb)
- Treat 2000 - treatment system research on european addiction treatment (Univeristät Essen; Dr. Elmar Lengers)
- Support needs for cocaine and crack users in europe (COCINEU) (University of Hamburg; Angelika Gericke)
- Management of high risk opiate addicts in europe - risk opiate addicts study - europe (ROSE_EU) (University of Hamburg; Angelika Gericke)
- Driving under the influence of drugs, alcohol and medicine (Bundesanstalt für Strassenwesen (Federal Highway Research Institute))
- Female drug users in European prisons - Best practice for relapse prevention and reintegration (Zentrum für Interdisziplinäre Suchtforschung (ZIS), Universität Hamburg)
- Female drug users in European prisons - follow-up based guidelines for relapse prevention (Universitätsklinikum Hamburg-Eppendorf, Zentrum für Interdisziplinäre Suchtforschung der Universität Hamburg (ZIS))
- Reduction of drug related crime in prison: evaluation of the impact of substitution treatment on the management of inmates (BISDRO, Universität Bremen, Heino Stöver)
- Treatment of Comorbid Nicotine Dependence in Alcohol or Opioid Addicted Patients in Addiction Treatment Units (North Rhine-Westphalia Addiction Research Association; Klinik für Psychiatrie und Psychotherapie, Rheinische Kliniken Essen, Universität Essen (Prof. Dr. M. Gastpar))
- Community based epidemiological data as a rationale basis for designing and prioritizing allocation and intervention strategies in substance use disorders (ASAT Addiction Research Association; Prof. Dr. Hans-Ulrich Wittchen (TU Dresden))
- Targeted early interventions in heavy alcohol, cannabis and club drug users: Identification of cognitive and psychosocial problem profiles (ASAT Addiction Research Association; Dr. Christian Schütz (Ludwig Maximilian University Munich))
- Evaluation of Services Provided by Inpatient Integration Aid in Social Therapeutic Drug Aid Hostels in Thuringia (IFT Munich; Dr. Anneke Bühler)
- Substance Abuse Prevention with Children of Substance abusing Parents and Adolescent Migrants (IFT Munich; Dr. Anneke Bühler)
- Epidemiological Survey on Substance Abuse Among Adults in Germany (ESA) (IFT Munich; PD Dr. Ludwig Kraus)
- Literature Review and Development of an Evaluation Instrument of Best Practice in the Context of the EU project "Driving Under the Influence of Alcohol, Drugs and Medicines (DRUID)" (IFT Munich; PD Dr. Ludwig Kraus)
- 2006 Epidemiological Survey on Substance Abuse in the Adult Population of Bavaria (IFT Munich; PD Dr. Ludwig Kraus)

Appendix 4.1

- 2006 Epidemiological Survey on Substance Abuse in Adolescents and Adults of Rhineland-Palatinate (IFT Munich; PD Dr. Ludwig Kraus)
- 2006 Epidemiological Survey on Substance Abuse in Adolescents and Adults of Berlin (IFT Munich; PD Dr. Ludwig Kraus)
- Optimization of the Treatment of Drug Users by Indicative Allocation of Substitution Drugs to Patient profiles (IFT Munich; Dr. Heinrich Küfner)
- Evaluation of addiction services in general hospitals in Erfurt 2003 and 2004 (IFT Munich; Dr. Heinrich Küfner)
- Treatment motivation of therapy-resistant drug users (IFT Munich; Dr. Heinrich Küfner)
- Development of the German and European Version of the “Measurement in Addictions for Triage and Evaluation” (MATE) (IFT Munich; Dr. Heinrich Küfner, PD Dr. Ludwig Kraus)
- Prevalence and Analysis of Problematic Cannabis Use in Germany: Study on Outpatient Clients with Cannabis as Primary Diagnosis (IFT Munich; Roland Simon)
- Regular and Intensive Use of Cannabis and Related Problems (IFT Munich; Roland Simon)
- Global Audit Data on demand (UN Wien) (IFT Munich; Roland Simon)
- Expert Opinion on Substance Abuse Prevention (IFT Munich; Dr. Anneke Bühler)
- INCANT International Cannabis Need of Treatment (Head of the Delphi Gesellschaft research agency, Berlin)
- ESPAD 2003 (Institute for Therapy Research (IFT); Ludwig Kraus)
- HBSC 2001/2002 (School of Public Health, University of Bielefeld; University of Applied Science, Frankfurt; Department of Educational Science, Technical University of Dresden; Robert Koch Institute, Berlin)
- HBSC 2005/2006 (School of Public Health, University of Bielefeld, University of Applied Science, Frankfurt; Technical University of Dresden, University Medical Centre, Hamburg-Eppendorf)

11. Greece

- ESPAD 2003 (University Mental Health Research Institute (UMHRI))
- A survey in three metropolitan Greek cities on the general population attitudes towards ex drug users' socio-economic (re)integration (2006) (Greek Reitox FP of the EMCDDA / University Mental Health Research Institute (UMHRI))
- HBSC 2005/2006 (University Mental Health Research Institute (UMHRI))
- Public attitudes towards drugs and drug treatment (2005) (Therapy Centre for Dependent Individuals (KETHEA))

Appendix 4.1

- The 2004 Greek National Population Survey on Licit and Illicit Substance Use (University Mental Health Research Institute (UMHRI))
- HBSC 2001/2002 (University Mental Health Research Institute, Athens)

12. Hungary

- ESPAD 2003 (Behaviour Research Institute, at the Budapest University of Economics and Public Administration)
- HBSC 2001/2002 (National Institute of Child Health, Budapest; National Institute for Drug Prevention, Budapest)
- HBSC 2005/2006 (National Institute of Child Health Gyöngyi Kökönyei, Ágota Örkényi, (OGYEI), Budapest; National Institute for Drug Prevention, Budapest)

13. Ireland

- ROSIE (Research Outcome Study in Ireland Evaluating Drug Treatment Effectiveness) 2002–2005 (National University of Ireland, Maynooth)
- ROSIE (Research Outcome Study in Ireland Evaluating Drug Treatment Effectiveness: 2006–2007 (National University of Ireland, Maynooth)
- Drug Use in Ireland & Northern Ireland 2002–2003 (Ipsos MORI)
- Cannabis Use: The Social Context of Initiation and Patterns of Use (Queen's University Belfast (School of Sociology); Caral Stevenson)
- Stigma and injecting drug use (Queen's University Belfast (School of Sociology); Karen McElrath)
- Understanding the Risk Environment of Problematic Drug Users who engage in prostitution (National Advisory Committee on Drugs; Teresa Whitaker)
- Drugs, crime and community in Dublin – Monitoring quality of life in the North Inner City (North Inner City Drugs Task Force, Dublin)
- Drug use among new communities in Ireland: an exploratory study (Merchant Quai Ireland MQI)
- Driving under the influence of drugs in Ireland: results of a nationwide survey 2000-2001 (University College Dublin, Cusack, D.A., Leavy, C.P., Daly, L. and Fitzpatrick, P.)
- Drug use among prisoners: An exploratory study (Health Research Board, L. Dillon)
- An overview of the nature and extent of illicit drug use amongst the Traveller community: an exploratory study (University of Central Lancashire, J- Fountain)
- Smoking, alcohol and drug use in Cork and Kerry 2004 (Department of Public Health, HSE South, T. Jackson)

Appendix 4.1

- Drug use among the homeless population in Ireland (Merchant Quay Ireland, Lawless, M. and Corr, C.)
- A community drugs study: developing community indicators for problem drug use (School of Applied Social Science, University College Dublin, Loughran, H. and McCann, M. E.)
- Drug and alcohol detoxification services: a needs assessment for Cork and Kerry 2005 Mannix, M. (Department of Public Health, HSE South, M. Mannix)
- Changing track: a study informing a juvenile arrest referral pilot in the north inner city (North Inner City Drugs Task Force)
- Criteria applied by the Courts in sentencing under S. 15A of the Misuse of Drugs act 1977 (McEvoy, P.)
- One hundred homeless women: health status and health service use of homeless women and their children in Dublin (Royal College of Surgeons in Ireland, Dublin, Smith, M., McGee, H. and Shannon, W.)
- Methadone: What's the story? (Union for Improved Services, Communication and Education, Dublin)
- ESPAD 2003 (St. Patrick's College, Dublin)
- HBSC 2001/2002 (Department of Health Promotion, National University of Ireland, Galway)
- HBSC 2005/2006 (Department of Health Promotion, National University of Ireland, Galway)

14. Italy

- EUDAP 2 - Implementation of EUDAP Project (European Drug addiction Prevention trial) at a population level (WHO (World Health Organization) - Regional Office for Europe; Matthias Wismar)
- ESPAD 2003 (Institute of Clinical Physiology, Italian Research Council, Pisa)
- HBSC 2001/2002 (Department of Public Health and Microbiology, University of Turin; Department of Developmental Psychology and Socialization, University of Padua)
- HBSC 2005/2006 (Department of Public Health and Microbiology, University of Torino, Department of Developmental Psychology and Socialization, University of Padua, Department of Physiopathology, Experimental Medicine & Public Health, University of Siena; CRRPS Regional Centre for Health Promotion, Veneto Region Department of Health)

15. Latvia

- Motivation towards drugs use in recreational settings in Riga city (Institute of Philosophy and Sociology at the University of Latvia (IPHS))

Appendix 4.1

- ESPAD 2003 and National school survey on alcohol and drugs (LaSPAD) (Institute of Philosophy and Sociology at the University of Latvia (IPHS))
- Drug Abuse Prevalence in Latvia (Institute of Philosophy and Sociology at the University of Latvia (IPHS) in close co-operation with the SAA)
- HBSC 2001/2002 (Health Promotion Centre, Riga)
- HBSC 2005/2006 (State Agency "Public Health Agency", Riga, Riga Stradins University, Health Promotion State Agency)

16. Lithuania

- ESPAD 2003 (Education Development Centre, Ministry of Education and Science)
- HBSC 2001/2002 (Laboratory for Social Paediatrics, Kaunas University of Medicine)
- HBSC 2005/2006 (Laboratory for Social Paediatrics, Institute for Biomedical Research of Kaunas, University of Medicine)

17. Luxembourg

- Prevalence and spreading of viral hepatitis A, B, C and HIV among problematic users of illicitly acquired drugs (NFP of the EMCDDA, Public Health Research Centre (CRP-Santé))
- Illegal activities related to drugs: estimation of economic impact in Luxembourg (STATEC, 2006) (Central service of statistics and economic studies STATEC)
- The direct economical cost of policies and public interventions to fight illegal drug use in the Grand-Duchy of Luxembourg (NFP of the EMCDDA, Public Health Research Centre (CRP-Santé))
- HBSC 2005/2006 (Division de la Médecine Préventive et Sociale, Ministère de la Santé, Luxembourg, Centre d'Etudes en Santé, Centre de Recherche Public de la Santé, Ministère de l'Education Nationale)

18. Malta

- Alcohol, Tobacco and Drug Use Amongst 18 - 24 Year Olds in Post-Secondary and Tertiary Education (National Commission on the Abuse of Drugs Alcohol and other Dependencies)
- ESPAD 2003 (Sedqa National Agency Against Drugs and Alcohol)
- HBSC 2001/2002 (Department of Health Promotion)

Appendix 4.1

- Licit and Illicit Drug Use in Malta in 2001: A General Population Survey Among 18-65 Year Olds (National Commission on the Abuse of Drugs Alcohol and other Dependencies)
- HBSC 2005/2006 (Health Promotion Directorate, Msida)

19. Netherlands

- The Netherlands XTC Toxicity (NeXT) Study (Universities of Utrecht, Amsterdam and Rotterdam)
- Results of 8 years Dutch substance abuse treatment redesign (GGZ Nederland "Geestelijke Gezondheidszorg Nederland")
- Effects Of Medical Heroin Co-prescription For Treatment-refractory Chronic Addicts (Committee on the Treatment of Heroin Addicts (CCBH))
- Inpatient Cue Exposure Therapy To Prevent Relapse Of Drug Abuse (Parnassia Psycho Medical Centre; Marlies Marissen)
- Immediate Detoxification Of Opiates With Naltrexone Under Anaesthetics (Novadic, network for addition care; R. Hermanides)
- Low Threshold Supportive Care For Local, Treatment-avoiding And Inaccessible Polydrug Users With Problematic Crack Use (Municipal Health Service Rotterdam, Sector Health Promotion; Reneé Henskens)
- Effects Of High Doses In Methadone Maintenance Treatment (Bureau Driessen/Social Science Research; F.M.H.M. Driessen)
- Combating drugs related criminal activities (Trimbos Institute; Dr. F. B. Trautmann)
- Drug treatment careers of immigrant versus native drugusers (Trimbos Institute; Prof. Rigter)
- INCANT INternational CAnnabis Need of Treatment (Department of Public Health, Erasmus Medical Centre, Rotterdam)
- ESPAD 2003 (Trimbos Institute)
- HBSC 2001/2002 (Trimbos Institute, Netherlands Institute of Mental Health and Addiction, Utrecht, Department of Child and Family Care, University of Nijmegen; Faculty of Social Sciences, University of Utrecht, Trimbos Institute, Netherlands Institute of Mental Health and Addiction, Utrecht)
- HBSC 2005/2006 (Faculty of Social and Behavioral Sciences, University of Utrecht, Netherlands Institute of Mental Health and Addiction, Trimbos Institute, Utrecht, Social and Cultural Planning Office of the Netherlands, The Hague)

Appendix 4.1**20. Poland**

- Psychoactive substances. Attitudes and behaviours. Nationwide survey conducted in 2006 (National Bureau for Drug Prevention, Warsaw 2006; Janusz Sierosławski)
- Evaluating the prevalence of infectious diseases (hepatitis type C and B, HIV) among injecting drug users with special consideration given to migration between countries (National Institute of Hygiene, Department of Epidemiology, Warsaw 2005; Magdalena Rosińska)
- National school survey on the use of psychoactive substances (Institute of Psychiatry and Neurology, Warsaw 2005; Janusz Sierosławski)
- Drug use patterns and related problems among the residents of Warsaw, Kraków, Poznań and Wrocław. Estimating the number of drug users in Poland (Institute of Psychiatry and Neurology, Warsaw 2002; Antoni Zieliński, Janusz Sierosławski)
- Effectiveness of institutional help forms for young people at risk of social exclusion (Lublin University, PORZAK Robert)
- ESPAD 2003 (Institute of Psychiatry and Neurology, Warsaw)
- HBSC 2001/2002 (Faculty of Pedagogy, University of Warsaw)
- HBSC 2005/2006 (Mother & Child National Research Institute, Warsaw, Faculty of Pedagogy, University of Warsaw)

21. Portugal

- National School Survey Project (IDT (Institute on Drugs and Drug Addiction))
- National General Population Survey on Psychoactive Substance Use (CEOS at the Faculty of Social and Human Sciences, New University of Lisbon)
- Prevalence and Patterns of Problematic Drug Use in Portugal (School of Psychology and Educational Sciences at the University of Porto)
- Drugs and Prisons in Portugal (CIES, a research centre at the Institute of Business and Labour Sciences (ISCTE) in Lisbon)
- ESPAD 2003 (IDT (Institute on Drugs and Drug Addiction))
- HBSC 2001/2002 (Faculty of Human Kinetics, Technical University of Lisbon)
- HBSC 2005/2006 (Faculty of Human Kinetics, Technical University of Lisbon)

22. Romania

- ESPAD 2003 (Institute for the Management of Health Services (National Institute for Health Research-Development))
- Study on drug use in the general population GPS

Appendix 4.1

- Drug use: Injecting behaviour and sexual conduct (Romanian Harm Reduction Network (RHRN))
- Drug use among young people in Romania (Save the Children)
- HBSC 2005/2006 (Department of Psychology, Babes-Bolyai University, Cluj)

23. Slovakia

- IATPAD - Improvement of Access to Treatment for People with Alcohol- and Drug-Related Problems (The Institute of Drug Dependencies at the Centre for the Treatment of Drug Dependencies in Bratislava)
- Individual, interpersonal, social and societal factors in risk behaviour in adolescence and young adulthood (The Institute of Social Sciences in the Faculty of Natural Sciences of P J Šafárik University in Košice)
- Drugs, addictive substances and other xenobiotics negatively affecting human health (biomedical project) (Department of Chemical Theory of Drugs FPHARMA Comenius University in Bratislava)
- Chiral drugs – stereo specific aspects of their biological effect, pharmacokinetics and metabolism (Department of Chemical Theory of Drugs FPHARMA Comenius University in Bratislava)
- HBSC 2005/2006 (Public Health Authority of the Slovak Republic, Section of Protection, Promotion and Development of Health. Dr Elena Morvicova)
- ESPAD 2003 (Secretariat General of Ministerial Committee for Drug Abuse and Drug Control by Governmental Office of Slovak Republic (SGMCDADC))

24. Slovenia

- ESPAD 2003 (Health Promotion Centre at the Institute of Public Health of the Republic of Slovenia)
- HBSC 2001/2002 (Institute of Public Health of the Republic of Slovenia, Ljubljana)
- HBSC 2005/2006 (Institute of Public Health of the Republic of Slovenia, Ljubljana)
- The use of amphetamine, methamphetamine and other synthetic drugs in Slovenia (Association DrogArt; Faculty of Education)
- Pharmacological adjustment of craving for cocaine (University of Ljubljana; Faculty of Arts (Psychology studies))
- Treatment of heroin addicts with psychiatric comorbidity (Regional Institute of Public Health)

Appendix 4.1**25. Spain**

- RECREATION PREV - Recreational culture as a tool to Prevent risk behaviours (IREFREA - Instituto y Red Europea para el Estudio de Factores de Riesgo en la Infancia y Adolescencia; Amador Calafat)
- Role of endogenous opioids in the pathophysiology of drug dependence and nociception. Possible therapeutic application of new enkephalin catabolism inhibitors (UNIVERSITAT POMPEU FABRA; Rafael Maldonado)
- Molecular bases involved in cannabinoid dependence (UNIVERSITAT POMPEU FABRA; Rafael Maldonado)
- Methadone maintenance and health care for drug users: identifying best praxis (MEHIB) (ANDALUSIAN SCHOOL OF PUBLIC HEALTH; José Andonio Souto Ibanez)
- Colombian cocaine networks in the European Union: A research on their capabilities and functioning in the most important entry points for cocaine in Europe (Fundación General Universidad Autónoma de Madrid)
- ULYSSES: Learning Programme For The Development Of Emotional Self Control ("SPORTS AND LIFE" ASSOCIATION)
- Detection of illegal drugs by isotope ratio mass spectrometry: improvement of sensitivity, widening of applicability and development of tests and reference data (ISOTRACE) (Fundacio IMIM, Barcelona, Prof. Jordi Cami)
- HBSC 2001/2002 (Faculty of Psychology, University of Seville)
- HBSC 2005/2006 (Faculty of Psychology, University of Sevilla, National Open University, Madrid, Department of Psychology, University of Huelva)

26. Sweden

- Cholecystokinin: Effects on motor behaviour and addiction (KAROLINSKA INSTITUTET; Prof. Tomas Hökfelt)
- Establishment of a harmonised, practical co-operation procedure for the exchange of profiling information between forensic laboratories. (STATENS KRIMINALTEKNISKA LABORATORIUM)
- Step-by-Step: a family focused program to prevent problems with alcohol and drugs among adolescents (STAD (Stockholm Prevents Alcohol and Drug Problems), Stockholm County Council, Centrum for dependence disorders in Stockholm, Stockholm County Council)
- ESPAD 2003 (Swedish Council for Information on Alcohol and Other Drugs, CAN, Stockholm)
- HBSC 2001/2002 (National Institute of Public Health, Stockholm)
- HBSC 2005/2006 (National Institute of Public Health, Östersund, Child and Adolescent Psychiatry, Stockholm County Council)

Appendix 4.1**27. United Kingdom**

- Drug Treatment Outcomes Research Study (National Drug Evidence Centre (NDEC) at the University of Manchester; National Centre for Social Research (NatCen))
- Estimating the National and Local prevalence of problem drug use in Scotland (Centre for Drug Misuse Research, University of Glasgow (Gordon Hay); Scottish Centre for Infection and Environmental Health)
- Substitute prescribing for opiate dependence in Northern Ireland
- Heroin addicts and their children : a prospective longitudinal cohort study of treatment outcomes (University of Sheffield; Dr. Jeffrey Purglove)
- The quasi-compulsory treatment of drug dependent offenders in europe (QCT EUROPE) (University of Kent at Canterbury; Kate Hall)
- Genomics, mechanisms and treatment of addiction (University of Surrey; Prof. Ian Kitchen)
- Drugs and psychosis (St George's Hospital Medical School (University of London); Frank Shore)
- EDAP - Evidence for Drugs and Alcohol Policy: Cochrane Systematic Reviews (Oxford Brookes University; Prof. David R. Foxcroft)
- The European network of drug services in prison (Cranstoun Drug Services; Edoardo Spacca)
- Dexamphetamine Substitution as a Treatment of Amphetamine Dependence: A Two-Centre Randomised Controlled Trial (Mental Health Services Manchester; Dr John Merrill (via Drugs Misuse Research Initiative))
- The Effectiveness and Cost Effectiveness of Cognitive Behaviour Therapy for Opiate Misusers in Methadone Maintenance Treatment (St George's Hospital Medical School, University of London; Dr. Collin Drummond (via Drugs Misuse Research Initiative))
- Comorbidity in the National Psychiatric Morbidity Surveys (National Addiction Centre, Institute of Psychiatry, King's College London; Dr. Michael Farrell (via Drugs Misuse Research Initiative))
- Waiting for Drug Treatment - Effects on Up-take and Immediate Outcome (OWL) (Drug Misuse Research Unit, University of Manchester; Dr. Michael Donmall (via Drugs Misuse Research Initiative))
- Randomised Clinical Trial of the Effects of Time on a Waiting List on Clinical Outcomes in Opiate Addicts awaiting Out-Patient Treatment (National Addiction Centre, Institute of Psychiatry, King's College London; Prof. John Strang (via Drugs Misuse Research Initiative))
- Accessing Drug Services: An Examination of Client Needs in Relation to Service Pathways (University of Manchester; Dr. Jan Moring (via Drugs Misuse Research Initiative))

Appendix 4.1

- The Psychosocial Consequences of Drug Misuse: A Systematic Review of Longitudinal Studies (Department of Primary Care and General Practice, The University of Birmingham; Dr. John Macleod (via Drugs Misuse Research Initiative))
- An Evaluation of a Brief Intervention Model for use with Young Non-Injecting Stimulant Users (National Addiction Centre, Institute of Psychiatry, King's College London; Dr. John Marsden (via Drugs Misuse Research Initiative))
- The application of Social Behaviour and Network Therapy (SBNT) to Work with People with Drug Problems and their Networks: A Feasibility Study (Birmingham Alcohol, Drugs and Addiction Research Group, University of Birmingham)
- Involving Family Members in Routine Service Delivery (Birmingham Alcohol, Drugs and Addiction Research Group, University of Birmingham)
- Good practice in working with family members: disseminating and evaluating a model and methods in two Black and ethnic minority communities in Birmingham (Birmingham Alcohol, Drugs and Addiction Research Group, University of Birmingham)
- Estimate of the number of problem heroin users and cocaine users in Northern Ireland (Centre For Drug Misuse Research (Faculty of Law, Business and Social Science), University of Glasgow)
- User involvement in treatment decisions (Centre For Drug Misuse Research (Faculty of Law, Business and Social Science), University of Glasgow; Prof. Mick Bloor)
- Drugs in the family: the impact of problem drug use on parents and siblings (Centre For Drug Misuse Research (Faculty of Law, Business and Social Science), University of Glasgow; Dr. Marina Barnard)
- Avoiding drug misuse (Centre For Drug Misuse Research (Faculty of Law, Business and Social Science), University of Glasgow; Prof. James McIntosh)
- Models of good practice in drug prevention (Centre For Drug Misuse Research (Faculty of Law, Business and Social Science), University of Glasgow; Prof. Neil McKeganey)
- Pre-teen drug misuse (Centre For Drug Misuse Research (Faculty of Law, Business and Social Science), University of Glasgow; Prof. Neil McKeganey)
- National evaluation of pump priming drug prevention projects and initiatives for vulnerable young people in Health Action Zones (Centre For Drug Misuse Research (Faculty of Law, Business and Social Science), University of Glasgow; Dr. Linda Bauld)
- Growing up with drug dependent parents: child, parent and practitioner perspectives (Centre For Drug Misuse Research (Faculty of Law, Business and Social Science), University of Glasgow; Dr. Marina Barnard)
- Review of drug misuse research (Centre For Drug Misuse Research (Faculty of Law, Business and Social Science), University of Glasgow; Prof. Neil McKeganey)
- Community responses to drug misuse (Centre For Drug Misuse Research (Faculty of Law, Business and Social Science), University of Glasgow; Steve Parkin)

Appendix 4.1

- The Measurement of Changing Public Attitudes Towards Illegal Drugs in Britain (N Stratford)
- Drug User Patient Groups 'User Groups' and Drug Policy, 1970's to 2002 (Professor Virginia Stewart berridge)
- The Scale and Meaning of Drug Use in the Lives of Young People in Public Care (Professor Tim Newburn)
- The Neurologics of Desire: Addiction and Dependence in the Biomolecular Age (Scott Vrecko (London School of Economics and Social Sciences))
- Indirect Harm from Regular Cannabis Use (Professor Philip Terry (University of Birmingham))
- Youth Gangs in an English City: Social Exclusion, Drugs and Violence (Dr Judith Aldridge)
- Cannabis, Drugs and British Government 1928-2002: The History of Policy (Dr James Mills)
- ESPAD 2003 (University of the West of England, Bristol)
- HBSC 2001/2002 (Health Development Agency, London; Child and Adolescent Health Research Unit, University of Edinburgh; Health Promotion Division, Welsh Assembly Government, Cardiff Human Services, Rockville)
- HBSC 2005/2006 (National Institute for Health and Clinical Excellence (NICE), London; Child & Adolescent Health Research Unit, University of Edinburgh; Department of Public Health & Health Professions, Welsh Assembly Government, Cardiff, Cardiff Insitute for Society, Health & Ethics, Cardiff University)

EU funded Projects

ID No.	Title of the project	Major research area	Major sub-topic	MS (main partner)	MS (add. partners)	Project director affiliation	Substance	Project total cost	Funding volume	Project time period (Start-End)
Research Directorate-General (DG RTD)										
10.10	Driving under the influence of drugs, alcohol and medicine	Drug mechanisms, effects and methods of detection	Drug effects on emotion, cognition and behavior	D	NL; I; H; PL; P; CZ; LT; FIN; SLO; others; E; B; GR; DK; F; A	Public/governmental organisation	Combined legal and illegal substances	23.812.601	18.932.265	Oct 06-Oct 10
10.7	Treat 2000 - treatment system research on european addiction treatment	Intervention	Environmental prevention	D	S; GR; others; I; UK	University	Opioids	803.841	666.000	March 00-Aug 04
10.8	Support needs for cocaine and crack users in europe (COCINEU)	Intervention	Treatment	D	I; E; H; A; others; UK; S	University	Cocaine	590.280	483.360	Jan 02-Dec 03
10.9	Management of high risk opiate addicts in Europe - risk opiate addicts study - Europe (ROSE_EU)	Intervention	Treatment	D	others; UK; S; A; F; B; NL; GR	University	Opioids	814.800	558.000	Oct 02- Sep 04
6.6	Integrated services aimed at dual diagnosis and optimal recovery from addiction (ISADORA)	Intervention	Treatment	DK	FIN; UK; F; PL	Public/governmental organisation	Substances not specified	1.399.986	1.399.986	Nov 02-Oct 05
25.2	Role of endogenous opioids in the pathophysiology of drug dependence and nociception. Possible therapeutic application of new enkephalin catabolism inhibitors	Drug mechanisms, effects and methods of detection	Mechanisms of action	E	D; F; GR	University	Opioids	n.a.		Dec 98-Aug 02
25.4	Methadone Maintenance and Health Care for Drug Users: identifying best praxis (MEHIB)	Intervention	Treatment	E	D; UK	University	Opioids	390.031	390.031	Jan 02-Jul 04
9.4	Characterisation and role of interactions between opioid and cannabinoid systems	Drug mechanisms, effects and methods of detection	Mechanisms of action	F		Public/governmental organisation	Multiple illegal substances		40.000	Oct 05-Sep 06
9.5	Synaptic plasticity and long-term depression in the nucleus accumbens after in vivo exposure to addictive drugs	Drug mechanisms, effects and methods of detection	Mechanisms of action	F		Public/governmental organisation	Substances not specified		159.353	Sep 05-Aug 07
9.6	Genetic and hormonal influences on reward processing: insights from brain imaging in humans	Drug mechanisms, effects and methods of detection	Mechanisms of action	F		Public/governmental organisation	Substances not specified		80.000	Jan 06-Dec 07
9.7	Dopamine d3 receptor ligands : a novel approach to the treatment of drug addiction	Drug mechanisms, effects and methods of detection	Mechanisms of action	F	UK; D; NL	Public/governmental organisation	Substances not specified	2.792.541	999.999	Feb 00-Jan 03
26.1	Cholecystokinin: Effects on motor behaviour and addiction	Drug mechanisms, effects and methods of detection	Mechanisms of action	S		Public/governmental organisation	Substances not specified	168.189	168.189	Oct 04-Sep 06
27.7	Drugs and psychosis	Drug mechanisms, effects and methods of detection	Clinical psychology	UK	I; DK	University	Multiple illegal substances	880.149	880.149	Dec 01-Nov 04
27.6	Genomics, mechanisms and treatment of addiction	Aetiology and course	Aetiology and course	UK	E; F; D; PL; H; others	University	Substances not specified	12.656.338	8.100.000	Jan 05-Dec 09
27.4	Heroin addicts and their children: a prospective longitudinal cohort study of treatment outcomes	Intervention	Treatment	UK	E; others	University	Opioids	1.532.081	749.989	Feb 00-Jan 05
27.5	The quasi-compulsory treatment of drug dependent offenders in europe (QCT EUROPE)	Intervention	Treatment	UK	others, NL; I; D	University	Substances not specified	1.395.540	855.006	Oct 02-Sep 05
8.4	CHAMP - Collaborative Harmonisation of Methods for Profiling of Amphetamine Type Stimulants	Interdiction	Drug supply related forensics	FI	NL;FR;D;CZ;others	Public/governmental organisation	Other stimulants including caffeine	1.124.420	867.180	Jul 04-Sep 06
9.8	CRIMPREV - Assessing Deviance, Crime and Prevention in Europe	Interdiction	Organised crime	F	NL;B;E;D;UK;I;PO;GR;SLO	Public/governmental organisation	Substances not specified	1.100.000	1.100.000	Jul 06-Jun 09
25.9	Detection of illegal drugs by isotope ratio mass spectrometry : improvement of sensitivity, widening of applicability and development of tests and reference data (ISOTRACE)	Interdiction	Drug supply related forensics	E	NL;IRL;UK;F;GR	Public/governmental organisation	Substances not specified	1.863.125	990.750	Apr 00-Oct 03

EU funded Projects

ID No.	Title of the project	Major research area	Major sub-topic	MS (main partner)	MS (add. partners)	Project director affiliation	Substance	Project total cost	Funding volume	Project time period (Start-End)
Directorate-General for Justice, freedom and security (DG JLS)										
2.3	Conquest	Interdiction	Trafficking	B	NL; D; UK; F	Public/governmental organisation	Opioids	71.001	36.015	2003
10.15	Female drug users in European prisons - Best practice for relapse prevention and reintegration	Intervention	Person-oriented prevention	D	A; E; PL; UK	University	Substances not specified	170.244	119.955	2003-2005
10.18	Female drug users in European prisons - follow-up based guidelines for relapse prevention	Intervention	Person-oriented prevention	D	UK; PL; A; E	University	Substances not specified	272.661	190.871	2005-2006
10.19	Reduction of drug related crime in prison: evaluation of the impact of substitution treatment on the management of inmates	Intervention	Treatment	D	others; I; UK; P; PL; E	University	Substances not specified	194.364	154.300	Aug 05-Jul 07
25.7	Colombian cocaine networks in the European Union: A research on their capabilities and functioning in the most important entry points for cocaine in Europe	Drug supply	Trafficking	E	BG; NL; CZ; B	University	Cocaine	129.410	88.571	2005
25.8	Joint Customs Operation TOLEDO II	Interdiction	Trafficking	E	I; F	Public/governmental organisation	Cocaine	153.378	107.364	2004
26.3	Establishment of a harmonised, practical cooperation procedure, through efficient database networking, for the exchange of profiling information between forensic laboratories (phase 2)	Interdiction	Information sharing and cooperation	S	FIN; UK; NL; PL; F; DK	Public/governmental organisation	Substances not specified	531.344	371.940	2004
26.4	Establishment of a harmonised, practical co-operation procedure for the exchange of profiling information between forensic laboratories	Interdiction	Trafficking	S	DK; FIN; F; UK; NL; PL; others	Public/governmental organisation	Other stimulants including caffeine	452.866	200.000	2003
Directorate-General for Health and Consumers (DG Sanco)										
25.1	RECREATION PREV - Recreational culture as a tool to Prevent risk behaviours	Intervention	Environmental prevention	E	P; I; A; UK; SLO; D; CZ	Public/governmental organisation	Substances not specified	581.200	348.720	March 05-Feb 08
9.3	OSIAP – Ordonnances Suspectes Indicateur d'Abus et de Pharmacodépendance	Drug supply	Diversion/leakage	F	E; B; NL; I; S	University	Multiple illegal substances	744.634	420.385	Jan 05-Dec 07
14.1	EUDAP 2 - Implementation of EUDAP Project (European Drug addiction Prevention trial) at a population level	Intervention	Person-oriented prevention	I	GR; A; S; B; E; PL; CZ	Public/governmental organisation	Combined legal and illegal substances	1.340.537	804.321	May 06-Apr 09
15.3	Drug Abuse Prevalence in Latvia	Epidemiology	Population based	LV		University	Multiple illegal substances	n.a.		2002-2003
23.1	IATPAD - Improvement of Access to Treatment for People with Alcohol- and Drug- Related Problems	Intervention	Treatment	SK	GR; I; PL; SLO; UK	Public/governmental organisation	Combined legal and illegal substances	853.000	678.000	Dec 06-Dec 09
27.8	EDAP - Evidence for Drugs and Alcohol Policy: Cochrane Systematic Reviews	Intervention	Treatment	UK	F; GR; I	University	Multiple illegal substances	1.071.143	749.800	March 03-Aug 05
27.10	The European network of drug services in prison	Intervention	Treatment; additional focus on HIV, hepatitis	UK	A; B; DK; FIN; F; D; GR; IRL; I; L; NL; PL; P; SLO; E; S	Private organisation/NGO	Substances not specified	833.964	582.598	Dec 02-May 04

Appendix 5

Overall List of Research Publications

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Appendix 5**1. Austria****2001**

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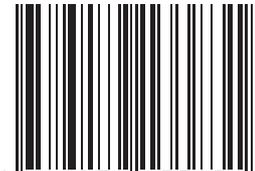
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