European Monitoring Centre
for Drugs and Drug Addiction

Annual Expert Meeting

‘Drug-related deaths and mortality among drug users’ key indicator

-DRD-

Final Minutes

12-13 November 2012

EMCDDA – Lisbon

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Recipients: DRD experts and other participants to the 2012 DRD annual expert meeting; heads of national focal points.

- These minutes include a ‘Summary and action points’ box (Page 2) and details on the presentations and discussions
- Presentations are available from the DRD restricted access area (for participants in the expert meeting and national focal points) http://projects.emcdda.europa.eu/alias.cfm/areaDRD
- Username: area3
- Password: DRD2012

- The contact details of all speakers and participants are available from the above-mentioned link and persons interested in a particular presentation are invited to liaise directly with the speakers or with the EMCDDA for further information.

Appendices available from the DRD restricted access area

- Agenda
- List of participants
- DRD 2012 national abstracts available at the time of writing
- Papers and documents on the topics discussed, sent to the experts to prepare and to follow up after the meeting

Summary

- The expert meeting took place on 12–13 Nov. 2012 in the EMCDDA's premises.

- The main aims were to share and discuss the analysis of the recent European data and of the new developments. It aimed to discuss current activities and steps forward, to encourage cross-indicator analysis and to get input and suggestions from the national experts on some projects of the 2013 EMCDDA Work Programme.

- The meeting aimed as well to discuss the state of progress of the indicator 'Drug-related deaths and mortality among drug users', and to discuss specific national data and projects.

- The meeting focused on the following areas on which the experts were asked to comment and contribute with their data and analyses:
  - Recent European DRD data – new developments and concerns
  - Overall and cause-specific mortality among drug users based on longitudinal cohort studies of eight countries pooled for joint analyses in 2011-2012
  - Progress of the implementation of the key indicator (2012 full assessment for the management board)
- Cross indicator analysis of DRD/POU to control for different prevalence of POU when analysing and comparing overdose mortality rates
  - Other reference to different indicators (TDI, DRID), and use of complementary data from e.g. emergency settings, seizures, qualitative studies
- Cocaine related deaths[1] and methadone related deaths
- Deaths related to prescription opioids and other medicines
- Preventing overdose deaths[2]: discussing various prevention strategies and attempts in various countries, including internet tools, implementation of naloxone programmes and detailed data collection on the DRD cases
- Three workshops were organised on:
  - Using acute emergency data to monitor harms related to drugs (as an early 'brain storming' with experts to prepare a 2013 EMCDDA strategy paper)
  - Deaths from new psychoactive drugs to share up to date information on an increasing concern in some countries - and discuss on monitoring/reporting
  - Mortality cohort studies – research questions for multi-site pooled analysis
    - detailed discussion on the analysis of mortality data, coding and classification of causes of deaths, social inequalities, comparison with findings of previous pooled analysis (COSMO Studies)
    - Discussion with the national experts who could pool additional data onto the current dataset (~26 000 patients in the dataset so far) in 2013, and or set up mortality studies/linkage studies in their countries. Advices to adopt the format of the EMCDDA guidelines on mortality studies[3]
- The EMCDDA review of the KI expert meetings was presented, and carried out through direct observation and interviews

[1] Full report on cocaine related deaths in 2012 available form http://www.emcdda.europa.eu/themes/key-indicators/drd, under the 'Studies' section

[2] See report on Preventing opioid overdoses available from http://www.emcdda.europa.eu/themes/key-indicators/drd, under the 'Studies' section

3 See the 2012 cohort guidelines available from http://www.emcdda.europa.eu/themes/key-indicators/drd, under the 'Key Documents' section

Next steps and main action points for 2013

- Usefulness of data from hospital emergency departments
  Interested national experts will be asked, if comments have not been provided previously, to comment on the final report drafted on cocaine related emergency data. In part based on this work, we aim to write a strategy paper in 2013, on which the interested experts will be asked to comment. Action: national experts (in particular those involved in the report and in the paper published in EAR in 2012) and EMCDDA.

- OD4 methadone index
  Suggestion was made to conduct a restricted analysis for the reporting countries where the data are comparable. Another paper/report with all the data could follow. Action: involved national experts will be asked to comment on the refocused draft. Action: national experts and EMCDDA

- Multisite analyses of cohort studies
  We ask interested national experts to provide, where national regulation allows, and if not done yet, their datasets following the format of the 2012 EMCDDA cohort guidelines[4] to append them to the pooled EMCDDA dataset (~26000 patients so far). We aim to finalise draft papers in 2013 for submission and to write a short EMCDDA report on the main findings of the pooled cohorts. Interested experts are invited to suggest additional research questions. Action: EMCDDA, contractors and national experts.

- Cocaine related deaths
  We invite the experts involved in the 2012 review of cocaine related deaths in Europe to express their interest for further analysis/paper. Action: national experts, contractor of the 2012 project, EMCDDA

- Cross-indicator analyses
  Several cross-indicator analyses have been discussed during this meeting (see later in these minutes). The analyses used DRD / treatment / OST/ prevalence/ emergency data / purity / seizures / qualitative data / infection / POU. This needs to be encouraged and promoted - e.g. the DRD/POU analyses and the DRD / morbidity (emergency episodes) analyses. Action: national experts and EMCDDA

- Next meeting: November 2013 (exact date to be confirmed)

[4] As requested in the EMCDDA cohort guidelines, all individual case data sent to the EMCDDA should be fully anonymised (i.e. only a study ID number should be used and all identifiers, direct or indirect, should be deleted in the dataset shared with EMCDDA). All participating experts are requested to fully comply with their national regulations, in particular to ensure the complete respect of data confidentiality and data protection for the persons enrolled in the cohort studies or linkage studies.

Introductory session
(Session 1)

Objectives of this session: present the agenda, the objectives and the evaluation project of this meeting. Presenting and discussing the progress and the implementation of the indicator and the key 2012 findings/analyses. Introduce the discussions on pooled cohorts' analysis (to be continued in a workshop)

Key Epidemiological Indicator: Drug-related deaths and mortality among drug users. Introduction to the expert meeting
(Isabelle Giraudon, João Matias, Julian Vicente, EMCDDA)

The main aim of the meeting is to share information and to discuss the state of progress of the indicator, the recent European data and new developments (based on the annual report and statistical bulletin), and to discuss current activities and steps forward. In particular, we aim to ensure the continuity with previous analytical work, to encourage cross indicator and transversal analyses, and to further analyse data related to new or increasing public health concerns. Specific national data and projects will be presented. Progress made in 2011–2012 is reviewed. The full assessment of all 5 key KI conducted in collaboration with the Reitox Unit in 2012 is introduced, as well as the ongoing project of reviewing the KI meetings.

Three 2012 products/reports of the DRD indicators are mentioned: the report on preventing overdoses and on cocaine-related deaths and, the revised cohort studies guidelines, as well as the trend-spotter report on Fentanyl, for which DRD data and contribution from the DRD experts were very useful. Work planned is presented briefly including, on cocaine-related emergencies, the draft literature and report to be finalised in 2013 (following the publication of a paper in EAR journal in 2012); and the planned 2013 strategy paper on the use of data from emergency settings. Other ongoing work is briefly introduced, e.g. on analyses of mortality studies; methadone related death and prescription safety; and potential for cross indicator analyses including DRD/responses and DRD/POU mortality rates.

More information: Overview of progress with the Key Indicator

Overview of drug-induced deaths in Europe - What do the data tell us?
Results of DRD and mortality among drug users: 2012 Annual report and Statistical bulletin
(João Matias, *EMCDDA*)

Since the early nineties, between 6 400 and 8 500 drug-induced deaths were reported each year in Europe. In 2010, around 7000 cases were reported, compared to around 7600 in 2009. Provisional data for 2011 suggest a further decrease with a possible decline in two-thirds of the countries (provisional number for 2011 ~6500).

Population mortality due to drug-induced death (overdoses) varies widely between countries with an average of 20/million. Overall 10% of all deaths under 25 years old (compared to 14% in 2010). More than half of the OD victims are older than 40 in DN, the NL, and NO.

Opioids, mainly heroin, are present in the majority of reported cases, typically in around 85%. **The importance of detailed toxicological data for analyses of polydrug use is highlighted. Some countries with special registries report detailed data through their national report but this hard to analyse as the data are not reported in a standardised way.** Different hypothesis to explain the still high numbers in DRD and high mortality rates related to overdoses in some countries have to be further explored. Depending on the countries, they can include an increase in polydrug use, injection, relapsing opioid users leaving prison or treatment, an ageing population of chronic users. These factors were discussed during the meeting.

More information: Results of DRD and mortality among drug users

Mortality among opioid users. First results of the pooled cohort studies
(Marcel Buster, (NL) Albert Espelt (SP), Martina Pejak-Markelic (HR), Marcis Trapencieris (LV), Robert DeBono (MT), Thomas Clausen (NO), Andrei Botescu (HU), Jozica Selb (SL). João Matias, Isabelle Giraudon (EMCDDA)

This second study on mortality among drug users follows the EMCDDA COSMO project (Bargagli AM: EJPH, 2006: 16 (2) 198-202, Bird SM: Add. Res. & Theor. 2010: 18(2) 194-207). The current study involves more 'new' EU Member States and analyses updated and recent new data. It aims to describe (cause specific) mortality of the (pooled) cohorts, to (partly) explain differences between cohorts and to generate hypothesis. Cohorts are from 8 European States (cities): Spain (Barcelona), Netherlands (Amsterdam), Slovenia, Croatia (Zagreb), Romania (Bucharest), Norway (Oslo), Malta. They include cohorts of opiate users starting treatment and use similar methodology compared to COSMO: Data Linking (Population register, Mortality Register), Baseline measure at intake. Some results:

Population: 26,000 persons, 182 000 person years (py); Mortality: 2,419 deaths; Crude Mortality Rate / 1,000 py: 13.2 (95%CI: 12.7-13.8); Standardized Mortality Rate (SMR): 9.1 (95%CI: 8.7-9.4). Crude rates, SMR and survival are discussed by country as well as comparison with mortality in the general population. Foreseen analyses (and possible papers) are on socio-economic differences, age & Gender, differences with COSMO, cardiovascular causes of death, external causes of death, HIV. **Call for other cohorts to be added, after Poland offers to join with its dataset.**

More information: Cohort studies pooled analysis with 8 countries in 2012

Assessment of the implementation of the key indicator
(Sandrine Sleiman, EMCDDA)

This 2012 assessment of the implementation of the KIs provides an appropriate point to document the progress made and set up a benchmark for the forthcoming triennial work programme (2013–15). It contributes to the evaluation of the EU Action Plan and provides a better understanding of the implementation of the 5 KI using common tools. It supports the NFPs and facilitates the implementation in the MS. The assessment focuses on 'Process' and 'Data quality' (Data availability at national level, Harmonisation with guidelines, Timeliness, Coverage and Consistency) for the 3 sources of the DRD indicator (i.e. General mortality registries, special registries and mortality studies).

Compared to the 2009 evaluation, the 2012 exercise showed an improvement in data availability and comparability for the monitoring of drug-induced deaths through both types of registry. The standard reporting of toxicology findings was implemented in 2010 for the collection of 2009 data. Several countries are able to provide these details for the monitoring of overdoses related to polydrug use. Nonetheless, improvements are being sought in the reporting of these toxicology data, where available. Plans for new or updated cohort studies are in progress in several countries.

More information: Implementation of the key indicator

Cross-indicator analysis: a better insight on DRD and overdose mortality? (Session 2)

Objectives of this session: discuss the findings of the DRD/POU (Problem opioid users) cross-indicator analyses and the limitations of the data. Discuss, based on national examples, the possible use of POU, cohort, OST and TDI… to better understand OD mortality. Get preliminary input and comments to prepare the first draft of an EMCDDA report in 2013

Chair: Danica Thanki

Applied PDU estimations: POU and IDU as a denominator to analyse drug-related deaths prevalence
(Isabelle Giraudon, Danica Thanki, Kaatje Bollaerts (Belgium), João Matias, Julian Vicente)

The objective of these analyses is to use other denominators for a better insight on the level of risk of death among drug users. The advantages of using POU estimates are a better approximation of the risk among those exposed to drug use; and easier inter country comparison; and possible cross validation with cohort mortality rates. We gave priority to countries with high mortality rates, sufficient numbers of deaths reported, available POU estimates and cohort studies. We excluded countries where the POU estimate is only derived from DRD multiplier methods (i.e. using the number of reported DRD cases). We describe the findings for CZ, NL, DE, HR, UK, IE, NO and EE. The possible explanations for differences and 'uncommon results' like for DRD/IDU in the NL or DRD/POU in NO were discussed.

More information: Applied PDU estimations

DRD and other cross-indicator analyses and the limitations of the data
(Andrei Botescu, Romania)

The number of overdoses reported in 2011 (n=15) is half the number of 2010. **All cases are reported in Bucharest which strongly suggests underreporting in other part of the country** (i.e. 15 cases/3millions inhabitants in Bucharest and 0/17 remaining millions in other parts of the country). This trend is checked against data/information from non-fatal emergencies, NEP, IDU and POU estimates, infection prevalence, reported new HIV cases, pattern of injection of NPS; cohort data. The numbers of DRD cases that might be expected based on this cross indicator analysis (in particular cohorts) are discussed, as well as the limitation of the current data.

More information: DRD and other indicators cross-indicator analyses

Drug Related Deaths, Prevalence Estimates and Treatment Data Composing the Puzzle
(Charlotte Wirl, Martin Bush, Austria)

The background is of relatively high proportion of young among reported OD cases compared to other EU countries; and question whether they die more than others, are more numerous and or 'enter the scene'. There is evidence of different regional profiles. DRD, TDI and OMT data are cross-checked and show a similar age structure. There is a similar trend in TDI, DRD and OMT data <25years. The peak in POU<25 years in 2004 announced the peak in DRD<25years in 2006. On another note, at the end of the 90s DUs (young and others) stopped moving to Vienna and regional drug scenes developed. Overall, the comprehensive analysis shows a consistent picture: opioids are the main drugs in Austria; there was a strong increase of PDU in 2000-04 resulting in a younger drug using population nowadays; Regional shift and high increase in misuse of psychoactive medicines. **Conclusions**: **it is nice to know that we had a problem in the past – based on the data available it should be possible to detect epidemiological trends earlier to give possibilities for reaction!** Need to give more attention to the drugs combined with opioids and to include data on infectious diseases in the comprehensive analysis. Discussion at the end with other countries (Scotland, DN) where there was rise in POU in the late 90s, huge rise in DRD and later, spread through the country.

More information: PDUs, OMT, TDI and DRD joint analysis

Cocaine-related deaths and methadone-related deaths (Session 3)

Objectives of this session: present and comment on the main findings of the 2012 review on cocaine-related DRD. Discuss the current situation and possible further research/monitoring (e.g. non OD deaths) and the reporting of detailed toxicology findings through Fonte. Present the summary on the OD4 methadone analysis, and get some feed back from the group.

Chair Julian Vicente

Main findings of the 2011-12 research project on cocaine-related deaths
(John Corkery, United Kingdom)

The main objectives were to analyse the characteristics (age, gender, simple 'substance' typology) of cocaine-related DRD cases reported in SMRs; to describe the trend in numbers over 15 years where possible; to establish how cocaine deaths are identified and classified, and gauge the level of, and possible reasons for under-reporting. Nineteen countries answered the questionnaire and 9 filled in data tables: DN, DE, FR, IE, IT, the NL, PO, SP and the UK. Results: mixed picture in terms of trends in numbers of cocaine-related DRDs in participating countries; in 2000s, generally an increasing upward trend followed by a decline in most countries; timing of the peak occurred in different years; most cases reported in the UK (2 423 1998–2009) & Spain (1 635 in 2005–10). Mean age was late 20s, early 30s. Males account for 7-9 in 10 cases. 2/10 cases have only cocaine mentioned. Opioid mentioned in 6-9/10 cases. It would be valuable to examine in more detail non-OD cases, ascribed to 'general medical conditions', e.g. 'cardiovascular' and other general causes. **Some comments/discussions: some cases e.g. in their 30s with e.g. advanced cardiomyopathy may be unscreened and not recognised as cocaine-related deaths.**

Suggestion/discussion: there may be some more definite criteria for examining deaths under 35 or even under 55 years (many of whom do not undergo an autopsy)

More information: Main findings of the 2011-12 research project on cocaine-related deaths

Brief outlines for papers on cocaine deaths
(John Corkery, United Kingdom)

Following the cocaine deaths study, J Corkery prepared some suggestions for papers/further research. Preliminary ideas are on how cocaine DRDs are identified, classified and reported in Europe; trends and numbers; characteristics of the cases. Interested experts are invited to contact John Corkery and Isabelle Giraudon.

More information: Brief outlines for papers on cocaine deaths

Summary on cocaine-related deaths recently reported through Fonte: what information do we get?
(João Matias, EMCDDA)

Cocaine is the second most use illicit drug in Europe after cannabis 15.5 million Europeans have ever used cocaine (4.6 %); 4 million during the past year (1.2 %) of 3 million are between 15 and 34 years old. Cocaine prevails in south west European countries. Cocaine-related DRD are more difficult to define and identify when compared to opioids. Around 650 were reported by 16 countries in 2011 (decreases in most member states and compared with previous years (1000 cases reported in 2010).

Due to the lack of comparability in the available data, it is difficult to describe the European trend based on data reported through Fonte and national reports (i.e. Cocaine deaths are extracted and reported without standard methodology in the national reports, and not all countries are able to provide the toxicology findings through ST5 - section 4. We are working on that with the national experts and FPs. Based on section 4 of ST5 in the 14 countries where it is completed, the highest proportion of OD cases with cocaine mentioned are in SP (more than 2/3 cases), PO (more than ¼) followed by IE; SL, AT, FR.

More information: Summary on cocaine-related deaths recently reported through Fonte

OD-4 index: *Methadone prescribing and methadone related deaths: what is the link?*
(Isabelle Giraudon, EMCDDA with experts from IE, NO, FI, DN, SP, FR, LT, PT, the UK)

The background for this work is the evidence of methadone related OD in Europe and the paper from Strang et al BMJ 2010: OD4 index (Methadone-related Overdose Death/million Defined Daily Dose of prescribed methadone). Our initial objectives were to describe national patterns of methadone prescribing; to describe the relationship between methadone-OD deaths and the volume of prescription of methadone, and changes in European countries from 1998 to 2010; to analyse methadone-OD deaths against different OST systems and users characteristics. Ten countries were initially included but several failed to generate suitable data for an OD4 comparison. Thus it is suggested that OD4 index is now compared for four countries where the data are strong enough. Results show higher and increasing OD4 in FI compared to other countries. There are around 500 deaths/million defined daily dose in FI compared to around 20 deaths/million defined dose in NO and DN and 30/million defined daily dose in IE. Some explanatory factors are discussed as well as the limitations of this kind of 'ecological study'.

More information: OD4 index: possible comparison in 4 countries?

Special registries: possible use to explore DRD related to prescription opioids/painkillers. (Session 4)

Chair Mário Dias (INML, Portugal)

Objectives of this session: get inputs and comments from the experts on the possible use of this source of information, particularly on deaths related to prescription opioids and other psychoactive medicines

Overdose including prescription opioids and new developments in the reporting system
(Axel Heineman, Germany)

In 2011 the number of reported heroin related ODs decreased of 20% compared to the 2010 numbers. This is in a context of reduction in seizures and purity compared to 2010. There are very important regional variations in the prevalence of DRD and in particular in the numbers of ODs related to methadone – this is hard to believe - **suggestion that methadone is not searched for/reported in a similar way through the country ; real concern on detection and reporting of methadone related ODs. The cross-indicator analysis of methadone-related OD against OST coverage shows discrepancy, suggesting the same conclusion.** Autopsy rates of suspected OD cases vary from 99% in Berlin compared to less than a third in 2 regions. **The higher the autopsy rate, the higher the proportion of reported polydrug cases (plenty of autopsies->plenty of details on substances involved).**

The traditional structure of the German SMR has just been revised. The main aims of the revision were to define mutually exclusive categories; to report separately monodrug Opiate poisonings; to avoid multiple nomination in Polydrug poisonings with / without opioids; to distinguish 'monodrug poisonings' (e.g. these should not include cases with 'psychoactive medicine'); to exclude opioids from the 'other illicit drugs" category; to separate other illicit drugs detected"/ unknown substance; to separate suicidal or accidental poisonings from non- poisoning suicides and accidents; and to separate of disease due to long term harm of drug use from poisonings.

More information: Special register (SR) data from Berlin and Hamburg. New developments and process in improving the SR

Recent trends in deaths related to OST, prescription drugs and other substances in special mortality register
(Joakim Stranberg, Sweden)

Recent data from the special mortality register, Toxreg, administered by the Karolinska Institute, show an increase in the number of reported deaths investigated (autopsies) related to methadone and High dosage buprenorphine (HDB) (around 500 in 2011 compared to around 300 in 2006). Selection B shows the same increasing trend over this period although there was a reduction in the numbers reported in 2011 (to be completed). **Fentanyl related cases are discussed as well** – most are in young people, and associated with misuse of transdermal patches.

More information: Recent trends in deaths related to OST, prescription drugs and other substances in special mortality register

Fatal poisonings by medicinal opioids in Finland
(Erkki Vuori, Finland)

Finland is an 'ideal country' for post-mortem toxicological investigations: High autopsy rate; Extensive use of post-mortem toxicological services; All post-mortem toxicology is centralized to one laboratory by law; The screening methods are comprehensive and have been accredited; The laboratory get as feedback a copy of the death certificate from all cases investigated; The laboratory has an information management system with demographic data including a short description/narrative what has happened; The National Agency for Medicines publishes statistics annually on the consumption of medicines. **This 'list' of 'facilitating elements' to ensure robust SR data on DRD cases may inspire others.** Codeine, oxycodone, tramadol, fentanyl, methadone, buprenorphine, pregabalin are discussed separately for their potential for abuse, therapeutic dose, usual dose of abuse, the source (prescription, treatment, street), numbers of cases with positive toxicology, of which number of cases who were known drug users and numbers who died of an ODs. Results are presented by age band and gender, showing many different profiles of use, abuse and of risk.

More information: Abused opioids in fatal poisonings in Finland

Fatal Poisonings with Fentanyl(s) in Estonia
(Jana Tuusov, Estonia)

There were 888 illicit drug poisonings reported in Estonia between 2000 and 2009. The DRD mortality rate is the highest of European countries. Most cases are relate to 3-methyl fentanyl – 46% -, followed by fentanyl -20% and morphine/heroin from poppy straw mainly –In 2011, there were 105 fentanyles poisonings.

The priority list for substances is as follows: Opioids (T40.0-T40.2) > Cocaine (T40.5) > Psychostimulants with abusive potential (T43.6) > Synthetic narcotics, other and unspecified narcotics (T40.3-T40.4, T40.6) > Antidepressants (T43.0-T43.2) > Non-opioid analgesics (T39.-) > Drugs and substances not listed above. **Suggestion: Fentanyls are extremely toxic but they no not have special ICD code. In the priority list they should be before opioids and so far they are coded as 'Synthetic narcotics' or 'Drugs and substances not listed above'. Changes to ICD coding rules could improve concordance between clinical data and GMR. Suggestion has been made to WHO about improving ICD codes in the 11th edition.**

More information: Fatal Poisonings with Fentanyl(s) in Estonia

Preventing drug-related deaths (Session 5)

Objective of this session: share up-to-date information on some prevention strategies (DRD databases; psychological profiling; internet tools) in place or in development across Europe. Discuss their usefulness/fitness to different national contexts

Chair Dagmar Hedrich and Marica Ferri

Interventions to reduce drug-related deaths in Europe
(Teodora Groshkova, Alessandra Bo, EMCDDA)

EMCDDA ensures an ongoing monitoring of responses to reduce drug-related deaths (DRD) in Europe. This is based on analyses of national DRD prevention policies, opioid substitution treatment (OST) (coverage, involvement of general practitioners, availability and adherence to guidelines and standards), and DRD prevention measures (information materials for different target groups, DRD risk assessment, response training, naloxone distribution, supervised drug consumption rooms, and responses in prison setting). According to latest data, DRD prevention is a declared policy priority in most European Union Member States. At present, **700 000 problem opioid users (POU) access OST, giving an overall coverage estimate of 50%. Twenty-six (out of 30) countries report limited or unavailable overdose-response training (community) and overdose prevention counselling before prison release.** While naloxone, the heroin antidote, is available in most countries as part of standard ambulance equipment, **only three (out of 30) countries have take-home/peer use naloxone programmes. In 2011, six EU countries reported to have supervised drug consumption rooms.** Most European countries have introduced OST among the range of options for opioid-dependent prisoners, and the 'treatment gap' between community and prisons may now be closing, at least in some countries. In conclusion, there is a need to assure good quality of treatment while improving treatment coverage ; a particular focus should be on the prevention of drug-related deaths during 'treatment / prison-to-community transitions'.

More information: Interventions to reduce drug-related deaths in Europe

Seven year study on the psychological profiling of drug death cases in South East Scotland
(Julia Neufeind, Scotland)

The project aims to improve the understanding of drug deaths by defining data gathering procedures. Scotland has one of the highest OD mortality rates in Europe, and it is increasing. The collection of in-depth information about each drug death started in 2005 and the database now counts 380 cases. Data collected from procurator fiscal, GP services, police, include lifetime history and a focus on last 6 months (adverse events, family, employment, resources, prison…), social functioning mental health, prescription, circumstances of the death, post mortem and toxicology…**The 'profile' of the victims ('case vignette')** show and average age ~ 34 years, 70% are male, 75% maintain meaningful relationships with friends and family, ~75% have children; they left school at around 16. Around 90% were unemployed, with ~ 17 years of using illicit substance; 55% have been in prison. ~95% were known users, in regular contact with their GPs. Around 30% are known to have had adverse events and/or abuse in their childhoods; common life events in adulthood include bereavements, assault, abuse, relationship and child custody issues. 80% have a mental health problem. **Some findings for action: some hot spots for death location; people die with others around but responses from bystander is often delayed and poor; most deaths are related to BZD, heroin, antidepressant; polydrug cases increase; increasing role of prescribed medication.** The check of drugs prescribed against drugs found in post mortem informs on compliance (poor for analgesic and antidepressant) and diversion. Recommendations are made to the strategic group, which is responsible for formulating and overseeing the implementation of the action plan at local level: e.g. Overdose prevention training; Arrest referral schemes; Bereavement advice for bystanders. Impact? Difficult to say.

More information: Seven year study on the psychological profiling of drug death cases in South East Scotland

Overdose Risk InfOrmatioN Project (ORION): main findings and implications for prevention policies in Europe
(Gerry Humphris, Julia Neufeind ORION project - Collaborators: Alex Baldacchino, Jo Cecil, Martin Frisher, Ilana Crome, Norbert Scherbaum, Kerstin Moeller, Giuseppe Carra, Giovanni Vigano, Luigi Petito, Giuseppe Petito)

The aims of ORION are to develop an e-health overdose risk assessment tool to: Estimate overdose risk, Inform healthcare professionals of patient's sense of risk and Raise awareness and understanding in patients. The implementation of this e-health tool was piloted in different clinical settings. The software is based on a literature search for the included risk factors of OD, identifying odds ratios for OD deaths. The patients were invited to complete 9 questions, and to discuss them and the estimated risk with their health care provider. For the implementation, objective to include 40 patients per country, in 4 different settings: Outpatient / maintenance patients; Inpatient; Safe Injecting Rooms (Germany) and Mobile Unit (Italy). **Early results suggest that 52% said they learnt something about drug overdose; 48% will consider changing drug use; 83% thought it was fairly or very useful.** Younger users seem more likely to consider changing behaviour. Next **steps (ORION2) will include assessment of Behaviour change**; Follow-up contact; RCT design and Clinician training package.

More information: Overdose Risk InfOrmatioN Project (ORION): main findings and implications for prevention policies in Europe

A National centrally co-ordinated system which looks into the circumstances of every DRD recorded in Scotland: main findings and practical impact on policies
(Roy Robertson, Scotland)

Over the past fourteen years, a comparison of the five-year averages between 1996-2000 and 2006-2010 show an increase of 91% of the number of DRDs in Scotland. The national database on DRD aims to describe a comprehensive picture of DRDs, setting them into a wider context of the individual's social circumstances and previous service contact. The **2009-2010 cohort counts 797 fatal cases.** Some characteristics of the victims: 71% had been an IV user at some point in their life; 46% had experienced a non fatal OD in the past; 48% had a problematic alcohol use and 55% had a psychiatric condition; 14% had undergone a detoxification within the previous year with 69% of these having died within 3 months. 60% had experienced a significant life event in the 6 months prior to death. **Someone was in the vicinity for almost two thirds (62.4%) of deaths. 'Take Home' naloxone was recorded as being available in 21 cases but only administered in 13 cases.** The two most common drugs present were Diazepam (78%) and Heroin (64%). **A quarter of the cases (24%) was receiving OST (of which 83% with methadone).** Just over half (53%) of those with Methadone present in post mortem had **not** been on OST. Discussion: **diversion of methadone might be a sign for increased need for access to treatment.** Impact of the co-ordinated system: waiting time for methadone has been shortened and recommendations were made to increase High Dosage Buprenorphine (HDB). Question is raised whether the 'recovery agenda' may have raised pressure on drug users to reach abstinence and whether in consequence, the number of treatment entries and exits may have risen, leading to increased risk of DRD?. However, it is explained that that there is sometimes a confusion between recovery ('which should be about little bits and feeling better') and abstinence.

More information: A National centrally co-ordinated system which looks into the circumstances of every DRD recorded in Scotland

Naloxone in Italy
(Teodora Macchia, Italy)

Naloxone has been available over-the-counter since 1995 for peer administration. No reported problems. Non-medical personnel are also trained to administer it in pre-hospital circumstances. Based on pharmaceutical sources, the volumes delivered have increased: 130000 doses in 2009, 206000 in 2010 and 250000 in 2011. **The trend in reported DRD cases is decreasing for ~15 years** (according to special mortality registry as no more data is reported from the general mortality register). For the 2008-Sept 2012 period, in the Lazio region full naloxone coverage), data is presented for different settings (emergency mobile units, street units and first reception centres…). There were around 340 000 contacts with addicts, a bit more than half being with heroin addicts; **7885 naloxone vials were distributed and there were 1194 OD emergency interventions** Conclusion/discussion: availability of Naloxone does not intensify heroin use in opioid addicts; on the contrary, it increases probability of addiction treatment. **Unfortunately, data on actual use, on availability of Naloxone programmes (hospital, ambulance, peer use), on evidence of its effective use are not collected at national level.**

More information: The Naloxone in Italy

Report on the current state of play of the 2003 Council recommendation on the prevention and reduction of health-related harm, associated with drug dependence, in the EU and candidate countries
(Charlotte Wirl, Austria)

Thanks again Charlotte for providing a short summary

Parallel workshop A: Acute emergency data and deaths from new psychoactive drugs (Session 6 - Workshop)

Objective: to get some initial input for the first draft of the 2013 EMCDDA internal strategy document, on the use of acute emergency data to monitor drug related health consequences. In this framework, a pilot project (possibly 4-5 countries) could be developed, on which input and suggestions are expected

Rapporteur Guust Crust

General thoughts on the various possible aims and objectives, methods and sources of information, when using acute emergency data to monitor drug related health consequences *(Elena Alvarez, Spain – introduction to her presentation)*

The different objectives of this kind of indicator [this question needs to be the first step] can be to set up: an 'Early warning indicator' (quick alerts, new drugs, new patterns)…; an 'Epidemiological surveillance'; a 'Monitoring of trends' (by type of drug, polydrug, pattern of use…); monitoring of the characteristics of the users (sociodemographic, different subgroups of DU); a monitoring of 'risk factors' which may lead to specific outcomes (i.e. overdose). This kind of indicator can as well monitor the 'Clinical characteristics and consequences' and monitor a targeted population (e.g. based on a drug, on age, etc).
The methods used depends on the objective(s) but must be adapted to the organization, structure and resources of each country. The case definition (inclusion/exclusion criteria) needs to be specified. The design can be Prospective (while the patient is being visited)/retrospective (clinical chart revision); based on the use information available/new research; the temporal coverage can be continuous/ periodic; the Geographical coverage can be all hospitals, some of them, representative sample, Sentinel system, etc.
The Sources (depending on objectives and feasibility) can be Emergency department in general hospitals or psychiatric hospitals; Mobile services (i.e. ambulance); Toxicology centres; Specific centre for drug users; Poison centre; Police records, etc.
With regards to the 'strategy' for the work to be conducted in 2013, several options can be discussed (need to decide on the most relevant and feasible question or monitoring):

- Reproduce/repeat the cocaine-related episodes study (Mena et al, 2012 EAR) for other drugs - i.e. cannabis-related episode would be important. In some countries, the monitoring of recent increase of other drugs (amphetamines, other stimulants) may be relevant as well.
- Alcohol study?
- Quick alerts in specific 'specialised' settings(EWS type)
- Others?

The experience of the Spanish Observatory on Drugs to collect information from "emergency settings". Thoughts for next steps.
(Elena Alvarez, Spain)

In Spain, on top of the 5 epidemiological key indicators (DRD, DRID, POU, GPS and TDI), plus EWS and supply monitoring, there is an indicator on drug-related hospital emergencies. Since 1987, there is an annual recording of the hospital emergency episodes in which nonmedical use of psychoactive substances (**Alcohol, Tobacco, Hypnotic sedatives. Illicit Drugs)** are mentioned (causality is not required), in patients aged 15-54 years. Coverage: 16/19 regions. Continuous data collection in three regions and one random week per month in 13 regions. In 2010 there were 16800 episodes reported, of which 33% were directly related to drugs. Most frequent diagnosis is acute intoxication and most frequent outcome is medical discharge (80%) and hospital admission (10%). The route of administration was mainly injection for heroin (66%), smoking for cannabis (93%) and intranasal (46%) for cocaine. The limitations of the data are discussed in particular the non continuous data collection and difficulties in following the trends. **Cross-indicator analysis for cocaine and for cannabis over the last 15 years, use emergencies, TDI, GPS and POU. They show consistent trends across the different indicators.**
More information: The experience of the Spanish Observatory on Drugs to collect information from "emergency settings". Thoughts for next steps

Hospital In-Patient Enquiry (HIPE) data in Ireland. Main findings, strengths and weaknesses. Some thoughts on novel approaches which may be of benefit
(Suzi Lyons, Ireland)

HIPE is the only source of morbidity data available for acute hospital services. It aims to provide timely and accurate collection of national hospital activity data. There are over 1.3 million records annually. **Note that episodes related to non hospitalised patients (either die or sent home after treatment) are not counted.**

There were 588 non-fatal OD cases in 2010 where narcotics and hallucinogens were involved, of which 491 with opioids and 94 with cocaine.

Limitations of the data are mainly due to unspecific coding and difficulties to search for the cases in the database. Case mix activity data – some codes are more valuable than others. Not necessarily recorded, however do now take 20 codes. **Other suggestions: alternative or complementary sources could be used: drug outreach workers networks, low threshold services, new electronic patient records for addiction services.**

More information: Hospital In-Patient Enquiry (HIPE) data in Ireland

Non-fatal poisoning with illicit drugs in Denmark
(Henrik Saelen, Denmark)

All emergencies are registered in the National Patient Register. Poisonings have a specific action code with an ICD 10 code for the type of poisoning. The monitoring started in 1999. Data are not very specific. They are from somatic and psychiatric emergency room data. Main findings: amphetamines increase, mainly since 2006 (~600 episodes in 2011 compared to ~300 in 2006). Heroin related episodes dropped from ~200 in 2010 to ~120 in 2011. The methadone and the 'other opioid' groups increase as well. **Cross indicator analysis shows that this is consistant with GPS and DRD data (less heroin, more methadone and more cocaine** - ~100 cases related to cocaine in 2006 compared to ~150 in 2011). In those aged less than 24 years, 50% of the cases are related to stimulants. In those aged 30 or more 16% of the cases are related to stimulants and 54% are related to opioids. Conclusions: registers covering emergency rooms give supplementary/confirming information on what is going on; data are not very good and llikely give an underestimation of the size of the problem; validating studies are needed; the equipment for analysing blood samples should be as good as possible (preferably gas-chromatography) if new drugs are to be discovered/identified.

More information: Emergency room data in Denmark

Comments/input from the other national experts – thoughts for a strategy paper in 2013:

The Netherlands: the system is based on the extrapolation of the registrations of the emergency episodes that arrive in 17 hospitals.

Latvia: limitation of the data available through hospital registries

France: difficult to access hospital on emergency episodes related to drugs. On an EWS note, the SINTES monitoring of the content/purity of collected drugs (part of the TREND system – or multi regional monitoring of the drug situation based on quantitative and qualitative work - is more suitable to detect new drugs and their possible health effects.

Scotland: difficult to collect this type of data for monitoring

Slovenia: hospitals used for detection of new drugs - participation in the EWS.

Portugal: There is a sentinel system with the INML (National Institute for forensic medicine) under which inner city Lisbon hospitals (catchment area include clubs and bar) can get specialised and full screening for psychoactive substances, including new psychoactive drugs for cases suspected of acute poisonings. Current limitations of the general data from hospital services: the coding system is based on the first diagnosis. Not all drugs are picked up.

Poland: use with combination of other indicators (tbc)

Hungary: use needle exchange programmes (tbc)

Romania: emergency data are used in combination with other indicators as presented and discussed in detail earlier during the meeting

More general comments/discussion following the feed back in plenary given by Guus Crus:

- Variety of systems in place and some countries more advanced than others in using use of acute emergency data to monitor drug related health consequences
- With regards to the monitoring of health consequences related to new drugs through data from emergency settings: there is a need for very good links with the laboratories (otherwise most substances will be missed); there is a need of a study protocol and questionnaire, to clarify the studies' objectives. The choice of the hospital and/or other settings will be justified (e.g. based on a special catchment area, likely to yield cases with poisonings involving new drugs). The inclusion/exclusion criteria of settings and of the cases will be clarified as well when the objectives of the studies are clear. This requests efforts, and if anything is done, work should be linked with EWS.

Parallel workshop B: Deaths from new psychoactive drugs and new trends in substance used (Session 7- Workshop)

Objective: to share up-to-date information on deaths related to new psychoactive drugs in several countries – could include analysing MDMA related deaths?

Rapporteur John Corkery

Amphetamine-type stimulants (ATS) drugs related emergency visits and mortality in Hungary
(Gergely Horvath, Hungary)

Cross-indicator analyses of the use of amphetamine-type drugs are presented using seizures, deaths, syringe exchange programmes (SEP), qualitive (interviews) and emergency data. Since 2009, there has been a decrease in heroin availability, seizures, and deaths (2010 and 2011 data). Seizures of amphetamines and cocaine also fell. Qualitative and forensic data suggest the emergence of 'new substances' in particular synthetic cathinones (powder and tablets) and synthetic cannabinoids (in powder or in herbal substances). Mephedrone disappeared after being controlled in 2010 to be replaced by MDPV and 4-MEC. Forensic analyses of substances seized were the first to pick up these substances. Emergency visits related to cannabis type and ATS increased in Budapest from ~300 in 2007 to more than 1600 in 2011. The share of heroin users in SEP visits halved between 2009 and 2011(56 to 24%); whereas the proportion of 'other drugs' users increased from 4 to 34%. There is an increasing prevalence of injecting cathinones. Reliable, valid information about new psychoactive drugs come only from the Early warning system (EWS) and Police seizure data thanks to exact analytical chemistry. Other information is based on 1) invalid? self-reporting (TDI, GPS) or 2) other data of limited validity.

More information: Amphetamine-type drugs related emergency visits and mortality in Hungary

Exchange on data collection challenges related to new psychoactive substances use. Reitox workshop in Budapest, April, 2012: quick summary
(Gergely Horvath, Hungary)
Participating countries: Austria, Czech Republic, Hungary, Italy, Lithuania, Poland, Romania, Slovakia, Spain, United Kingdom, EMCDDA

The main aims of this workshop were to strengthen exchange of information on prevalence and patterns of new psychoactive substance use and to identify and set up a group of countries that face similar challenges related to new psychoactive substances (i.e. new substances dominate the market, injecting drug use, increasing treatment demand).

Laboratories' and forensic issues were presented (see below in discussion). Beyond the problem of detection, there are some reporting issues which were presented and discussed as well (see below in discussion).

More information: Workshop summary. Exchange on data collection challenges related to new psychoactive substances use (Budapest 2012)

New trends in substance use among heroin users in Greece
(Chara Spiliopoulou, Greece)

Cross indicator analysis of heroin use is presented using deaths, seizures, purity and diversion of pharmaceuticals. The place of synthetic cannabinoids, methamphetamine, cocaine, mephedrone and synthetic cathinones is discussed as well. The number of reported DRDs has considerably dropped from 235 cases in 2009 compared to 24 cases in the first 6 months of 2012. Note that there are increasing in-built delays to confirm the DRDs (97/119 cases reported in 2011 are still under investigation). Heroin seizures have decreased from 334 kg in 2011 to 66kg in the

5 first months of 2012. Heroin purity is of 10-15% for large seizures and <5% for small seizures. For the first time "Labs" for "repackaging" of heroin are found. Diversion of pharmaceuticals is mainly with High dosage Buprenorphine (HDB), Suboxone and fentanyl. The treatment provision has changed. There is an increased number of people in therapeutic programmes in 2012. Waiting time (up to 3 years) is commonly shortened to 1 week now. More than 10% of the IDUs in Greece are HIV+. There are odd combinations of drugs, against a background of low heroin and cocaine purity. The toxicological laboratories have to screen the biological fluids for the whole range of substances. Difficult interpretation of the results and classification of deaths.

More information: New trends in substance use among heroin users in Greece

Deaths from new psychoactive substances (NPS) in the UK
(John Corkery, United Kingdom)

In recent years the UK has experienced a fall in deaths involving 'traditional' stimulants such as amphetamines, cocaine and MDMA. This has been evident in the UK GMR and the National Programme on Substance Abuse Deaths (np-SAD). Its database contains more than 25,000 deaths. Cocaine, amphetamine and MDMA deaths peaked in 2007, ketamine cases in 2008, GHB/GBL and piperazines in 2009. **27 NPS were found at post-mortem toxicology in 124 cases notified between Sept. 2009-Apri. 2012, 24 of which were also implicated in the causing or contributing to deaths (n=81). Main groups: Aminoindanes; Amphetamine-type substances (ATS); Benzofurans; Methoxetamine; Methcathinones; Natural products (Datura, Salvia); Phenazepam; Piperidines; Synthetic cannabinoids; Tryptamines.** Main findings from np-SAD 2009-12: Gender – even split for Aminoindanes & ATS, to lesser extent for Methcathinones, the rest are typically male. Mean age range = 18.5 - 38.5, lower than typical np-SAD case (mid-40s). Ethnicity – where known, mostly White. Most had a history of previous drug use; higher than most np-SAD cases. More than half died in residential premises but significant proportions in hospital. Manner of death – most attributed to accidents or drug abuse, but for methcathinones (typically mephedrone) large number of suicides/open verdicts. Reflected in underlying cause – mostly accidental poisonings but many traumatic deaths, especially hangings for mephedrone. The mean number of PM drugs ranges from 1-9, but typically 3 or 4 (in line with findings for other UK stimulant deaths, reflecting polysubstance use). NPS can kill of their own accord. Patterns of drug use in the post-mortem toxicology for mephedrone and similar methcathinone cases resemble those reported by surveys and online users' fora. Polysubstance use is common, especially the co-ingestion of alcohol, stimulants and 'legal highs'. Pathologies exhibited in cases exhibit similarities to those noted by np-SAD for amphetamine, cocaine, MDMA and khat.

More information: Deaths from new psychoactive drugs in the UK

Toxicological Results vs. Causes of Deaths
(Mário João Dias, Portugal)
This study highlighted the need for collaboration between pathologists (who have the circumstantial and autopsy information) and toxicologists (who have the expertise on drug identification and dosage issues). Collaboration is essential for the **interpretation** of post mortem drug levels, and ultimately, for understanding the causes of deaths and **coding/reporting DRDs**. Data from the special register (INML) for 2010-11 are presented, for cases with positive toxicology for morphine, cocaine and cannabis, and are broken down by cause eventually attributed by the pathologists (OD, accident, natural, suicide, others). There is no clear correlation between toxicology levels and ultimate 'cause of death. Two-thirds of the cases have 2 or more substances identified in the post mortem.

More information: Toxicological Results vs. Causes of Deaths

Comments/inputs and discussion

The session was introduced by referring to a wide range of newly emerging drugs on the recreational scene. Many are stimulants, including synthetic cannabinoids, methcathinones, ATS, etc. New patterns of use are also emerging, e.g. PDUs starting to use NPS[5].

Based on the presentation from Hungary and from the workshop on data collection challenges, the following points were discussed: it takes a long time and is costly to include NPS into traditional indicators. EWS and police seizure data are reliable sources. However, labs have difficulty in keeping up to date as the scene changes very quickly, there have been problems getting reference samples, finances are limited. Networking and sharing of libraries, spectra, etc is helping. Pathologists may not necessarily ask for detailed screening unless they have reason to do so. There is limited information on metabolism, toxicity, interactions, and long-term effects. Post mortem may detect the presence of NPS but the pathologist may not be able to say anything about the influence of the NPS on death.

Beyond the problem of detection, there are some discussion on more timeliness and sensitivity in monitoring and reporting on these NPS and on their health consequences. With regards to reporting, for some indicators, there will be growing numbers of cases in categories 'other drugs', 'other stimulants', 'not elsewhere classified'. For the DRD indicator in particular, should new psychoactive substances be included in DRDs definitions as well as "legal" drugs? Most special mortality registries do not include new psychoactive substances. There are problems in interpretation - what categories to put them into. There are no specific ICD10 T codes for these substances.
Tbc - Time-series analyses can be difficult with the possibility of misinterpretation as the legal status of specific substances changes over time. National risk assessments could use open questions, etc. Is reporting to the EMCDDA the correct vehicle, especially given time-lags involved? The value of cross-indicator analyses (as presented) is underlined.

Finland: Information from the EWS is used to identify new substances.

Greece: The economic crisis is affecting resources including forensic analyses and SMR staff. Screening is not as complete as it ideally should be.

Former Republic of Macedonia: suggestion that documentation is needed to show investigative judges that the EMCDDA want information on overdoses/deaths involving NPS, with a call for closer working and exchange of information.

A suggestion was made that a list of substances be drawn up and common codes allocated to them. Emergency room data could be further used. Perhaps a new 'indicator' - see discussions in 'Workshop A' around Emergency Rooms/hospital admissions is needed. This could perhaps link up with the EWS approach.

[5] Note: The UK Advisory Council on the Misuse of Drugs (ACMD) defines NPS as "psychoactive drugs which are not prohibited by the United Nations Single Convention on Narcotic Drugs or by the Misuse of Drugs Act 1971, and which people in the UK are seeking for intoxicant use'.

(Session 8 - Workshop) Analysis of mortality cohorts

Objectives: to get additional input from the participants on the pooled analyses carried out. Discuss the main findings. Discuss the project of draft EMCDDA report foreseen in the DRD 2013 work programme. Encourage new experts to join the working group and pool their cohort data. Share experiences on cohort implementation, management and data analysis.

Chair Marcel Buster

Socioeconomic inequalities in mortality: main findings and paper foreseen
(Albert Espelt, Barcelona)

Socio-economic inequalities in health are unfair, because they are avoidable and unnecessary. Deprivation is linked with health outcomes and mortality in particular. Rationale for this study: There are no studies; protective factors of mortality could be moderated by socio-economic position (SEP). The objective of this study is to analyse socio-economic inequalities in mortality in a cohort of heroin users admitted to treatment in several countries/regions of Europe. Using education level as a proxy (one of the TDI data available). Five sites are included: Barcelona, Bucharest, Zagreb, Slovenia and Latvia. Results: **the distribution of the patients according to their education levels vary across countries. In all countries, mortality seems higher in those with low education level compared to those with high education level. Significant association in the pooled analysis** (Hazard ratio 1.2). Possible explanations: Different social support of different SEP categories

Differences in adherence to treatment by SEP categories; Differences in health status and in the pattern of drug consumption at the moment of entering treatment? Prevention programmes for DRD are unequally distributed or have different impact by educational level? Limitations and next analyses are discussed.

More information: Socioeconomic inequalities in mortality: main findings and paper foreseen

Main findings of the 8 pooled studies: more details for discussion
(Marcel Buster, Amsterdam)

The 8 pooled cohorts are from Spain (Barcelona), Netherlands (Amsterdam), Slovenia, Croatia (Zagreb), Romania (Bucharest), Norway (Oslo), Malta, Cohorts of opiate users starting treatment; Similar Methodology: Data Linking (Population register, Mortality Register), Baseline measure at intake. Crude mortality rates are higher in SP, NO, followed by LV and the NL. The lowest are in Malta. Crude and OD/non OD non OD mortality rates by sites are discussed. Special focus on the issue of analysing the coding of the OD deaths (variations across countries). Discussion of the coding of other external causes of deaths and their grouping on categories (accidents, suicide, traffic, assaults, injuries, others). Mortality due to external causes were discussed. Survival probability of heroin users, smokers and the general population was presented.

More information: Main findings of the 8 pooled studies: more details for discussion

Comments/inputs and discussion

Detailed discussion on the analysis/findings/limitations/implications of some of the priority topics (comparison with COSMO, age and gender differences, social inequalities). Discussion for the planning for finalising the papers/report in 2013.

Gleb Denissov (Estonia) kindly agreed to double check and advise on how to classify some of the 'difficult' ICD10 codes in groups, for analysis.

Poland: the dataset (~4000 patients) will be sent to EMCDDA to contribute to the pooled analyses

Croatia: study on stimulants

Latvia (one of the pooled dataset). Suggestion to analyse the HIV deaths (epidemiology and coding issues)

Slovenia: together with Marcel Buster, the expert will analyse the deaths coded with 'cardiovascular' causes in the pooled dataset

Re new studies/possibility to associate new studies to the pooled analyses

Austria: few variables are available for study (age, gender, type of OST) from the electronic database. Unique ID number.

Cyprus: ~190 deaths recorded so far, some of those can be traced back to the TDI data. The problem is the impossibility to link to TDI and GMR, for a proper linkage study. Suggestion to link to known DRD to the TDI – feasibility and design/bias need to be discussed further

Bulgaria: cohort started in 99 and followed up to 2008, among OST out patients and inpatients in psychiatric wards. N =652 patients. Discussion with the NFP re the feasibility to pool these data[6].

[6] Same discussion is engaged with the Danish NFP