



DRUG CHECKING PROGRAMS AS A HARM REDUCTION STRATEGY

Mireia Ventura, Ph.D

Bruxelles, 1st Forum Science and Society dialogue in the field of drugs

4th of December 2012

Problem analysis

Prug use statistics estimate that approximately **14.5 million Europeans** have used **cocaine** at least once in their lives (4.3% of adults aged 15–64 years), **12.5 million have tried amphetamines** and some **11 million have tried ecstasy**¹.

Most of the countless **recreational substances** currently available, except alcohol, are **illegal** throughout Europe. One of the adverse effect of these conditions is that illegal drugs are often cut or replaced with other, mostly cheaper substances to increase profits.

Some examples are the different **fatal cases reported in Europe** with **PMMA**² sold as ecstasy or **4-Methylamphetamine** sold as Amphetamine³.

- 1. 2011, EMCDDA, Statistical Bulletin.
- 2. EMCDDA. (2003). Report on the risk assessment of PMMA in the framework of the joint action on new synthetic drugs.
- 3. EMCDDA. (2012). Europol Joint Report on a new psychoactive substance: 4-methylamphetamine.

Problem analysis

} Fortunately, in most cases this risk does not become lethal, although the presence of adulterants that have a cumulative toxicity is habitual.

} In 2009 it was reported in the U.S. and Canada the occurrence of **agranulocytosis associated with cocaine adulterated with levamisole** ^{4,5.} Since that, levamisole has been detected as adulterant of cocaine in many countries of Europe.

} Levamisole is an immunosuppressive substance which could provoke serious health problems to regular cocaine users.

^{4.} Knowles, L. et al. (2009). Levamisole tainted cocaine causing severe neutropenia in Alberta and British Columbia. Harm Reduction Journal. 6:30.

^{5.} Zhu, NY., Legatt, DF. and Turner, AR. (2009) Agranulocytosis after consumption of cocaine adulterated with levamisole. Annual Internal Medicine, 50(4), 287-9.

Problem analysis

- } Even if the substances are pure, there is a **risk related to the dosage**. One example are high dose ecstasy pills.
- } In terms of neurotoxicity of Ecstasy, scientific studies pointed out that the probability for possible neurotoxic damage in the serotonergic system grows with the amount of MDMA being consumed⁶.
- } Furthermore, it has been suggested that a proportion of the harms associated with ecstasy use (e.g., increased toxic effects) can be attributed to psychoactive ingredients other than MDMA that are contained within pills sold as ecstasy ^{7,8}.
- 6. Cuyàs, E. et.al. (2011). The Influence of Genetic and Environmental Factors among MDMA Users in Cognitive Performance. PLoS One. 6(11).
- 7. Parrot, A.C. (2004). Is ecstasy MDMA? A review of the proportion of ecstasy tablets containing MDMA, their dosage levels, and the changing perceptions of purity. Psychopharmacology.173(3-4), 234-41.
- 8. Vanattou-Saïfoudine, N., McNamara, R. and Harkin A. (2012). Caffeine provokes adverse interactions with MDMA ("Ecstasy") and related psychostimulants: mechanisms and mediators. British Journal of Pharmacology, 167(5), 946-59.

Drug Checking as a harm reduction strategy

- A **Drug Checking service** represents a **direct response** to the need to reduce these **health risks of illegal drug use**.
- } Drug Checking results show that illegal drugs varies greatly and with regional differences with regard to their levels of purity and the number and percentage of adulterants . Every country shows its own unique drug market composition and dynamic^{9,10}.
- Moreover, Drug Checking assists authorities in fulfilling their mandate to contribute to an **early warning system** by gathering data from the actual substances and drugs consumed and not solely from the often unadulterated substances seized by in police raids.
- 9. TEDI: Trans European Drug Information. (2012). First TEDI trend report. Available in: http://www.tediproject.org/uploads/trend_reports_file_1342521771.pdf
- 10. Brunt TM, Niesink RJ (2011). The Drug Information and Monitoring System (DIMS) in the Netherlands: implementation, results, and international comparison. Drug Testing and Analysis. 3(9):621-34

What is a Drug Checking service?

- The term "Drug Checking" refers to an **integrated service** that basically enables drug users to have their **synthetic drugs** (e.g., cocaine, ecstasy, GHB, or LSD) **chemically analysed as well as receiving advice, and, if necessary, counselling**.
- } Drug Checking represents an essential aspect of **public health** policy as recommended by the World Health Organization and has been further developed by both EU agencies and various European nations.
- An integrated Drug Checking service creates awareness about a drug's effects and side effects, educates users about the methods of harm reduction, and thereby reduces the risks for drug users. Moreover, substance alerts can reveal the risks of drug use to a larger audience.



Main goals

General

Drug Checking aims at minimizing the short- and long-term adverse health effects of illegal drug use.

Specifics

- } Use Drug checking programs as an educational and harm/risk reduction tool by **getting in touch with consumers** and providing them with individual and personalized information about the substance they may consume.
- } Use Drug Checking programs to help make contact with drug consumers that would not normally approach drug programs by providing peer focus interventions that suit the needs of the party scene and work well within the locations that drug use is focused.
- } Monitor the illegal market detecting new trends of drugs and drugs use and make this information available to all stakeholders involved.

Contact with drug users

- } Drug Checking services contact with users with high lifetime prevalences, high consumption frequency, polydrug use and negative experiences. Users of a Drug Checking service are individuals with high (risky) or even dependent consumption ¹¹.
- } For many users Drug Checking is often the first point of contact with the social support system. By offering these consumers a specific service (substance analysis) it is easier to motivate them to participate in a consultation or a counselling session ¹¹.

^{11.} Hungerbuehler, I., Buecheli, A., Schaub, M. (2011) Drug Checking: A prevention measure for a heterogeneous group with high consumption frequency and polydrug use – evaluation of Zurich's drug checking services. Harm Reduction Journal, 8:16.



Contact with drug users

Conditions:

- Pass the information on in a neutral, non- moralising and nonjudgmental manner without patronising or alarming the visitors.
- Anonymity of the drug user has to be guaranteed, this is one of the main conditions of keeping these services trustworthy for drug users. Young drug users often dismiss government messages as tendentious and untrustworthy and are better persuaded by personal contact with well-informed peers¹⁰.

10. Brunt TM, Niesink RJ (2011). The Drug Information and Monitoring System (DIMS) in the Netherlands: implementation, results, and international comparison. Drug Testing and Analysis. 3(9):621-34

Contact with drug users

- Research involving three nations reveals that integrated drug testing methods do not stimulate increased drug use and may even slightly reduce drug-use levels among the target audience¹².
- Warnings issued regarding a particular drug, after chemical analysis, can have far-reaching and positive effects on those most closely involved in drug use. Evaluations of the Party Drug Prevention in the City of Zurich shows that since Drug Checking was implemented, the number of people who consume more than one drug or abuse one substance is on the decline¹³.
- 12. Benschop, A., Rabes M. and Korf D.J.(2002). Pill Testing Ecstasy & Prevention, Niedersachsische Landesstelle Suchtgefahren, Germany.
- 13. Bücheli, A. Quinteros—Hungerbühler, I. Schaub, M. (2010). Evaluation of Party Drug Prevention in the City of Zurich, 16(8), 38-43.

It can be a Drug Checking service an adequate response to lethal drugs?

- 1. In the first stage, it provides information about the potential danger of a particular drug to the users. Research reveals that users consider the information provided by the Drug Checking team as very trustworthy¹⁴.
- 2. The second phase involves the dissemination of this information in the warning campaigns. One example of the effectiveness of networking was the one performed in 2009 due to a Research Chemical wrongly labeled. When the result of the analysis was spread through a website like Erowid and thorough the contacts of EMCDDA, the deaths stopped.



^{14. 2006,} Johnston, J.et al., "A survey of regular ecstasy users' knowledge and practices around determining pill content and purity: Implications for policy and practice," International Journal of Drug Policy, 17, 464-472.



Types of Drug Checking services

} Mobil (on site): Drug Checking facility at raves, clubs, festivals or public spaces. Mostly together with an information stand and/or chill out and with consultation services.



Regular in a Centre: Drug Checking facility for analysing or for collecting substances that later will be analyzed in a external laboratory. It's open regularly one day a week. It's mostly integrated in prevention or information Centre together with consultation and counselling services.

Different Drug Checking techniques

Different methods can be used for analysing drugs, the ones used in Europe are:

- } Marquis test and other colorimetric tests
- } Thin Layer Chromatography (TLC)
- } High Pressure Liquid Chromatography (HPLC)
- } Gas Chromatography (GS)
- } Mass Spectrometry (MS)
- } Nuclear Magnetic Resonance (NMR)











Drug Checking in Europe



At this moment seven European countries have Drug Checking facilities, and around 14.000 samples are analysed every year.

What is TEDI?

The Trans European Drug Information project (TEDI) is a **network** of European fieldwork Drug Checking services that **share their expertise and data** within a European monitoring and information system. **TEDI's chief aim is to improve public health and intervention programs**. Toward this goal, TEDI has developed a database system that collects, monitors and analyses the evolution of various European drug trends in recreational settings.

Besides its Drug Checking information function, **TEDI project also focuses** on:

- 1. Standardising the various processes related to Drug Checking
- 2. **Making recommendations** to help improve first-line project field interventions
- 3. **Monitoring** the evolution of new substances and new trends throughout Europe.

Conclusions

} Individual, directed, harm-reduction advice serves the needs of existing users better than simply promoting abstention. The one-on-one contacts the users have with the personnel at Drug checking services, combined with factual information concerning their drug purchase and other drugs circulating the streets largely meets the information needs of drug users.

A Drug Checking service attracts a heterogeneous risk consumption group, introducing early intervention to a group of drug users who are usually in the earlier stages of their 'drug careers' and who have not previously sought out the services offered by a substance abuse organisation.

Conclusions

A Drug Checking service increases the effectiveness of the response when new or lethal drugs emerges.

With the aim that nations will be able to more effectively address the issue of rapid detection of the dissemination of dangerous substances and the introduction of new drugs into Europe it has been created TEDI network.



CONTACT:

Mireia Ventura

TEDI Manager

mireia@energycontrol.org

www.tediproject.org