Stimulant use in Central & Eastern Europe: How Recent Social History Shaped Current Drug Consumption Patterns

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Summary
Current patterns of production and consumption of amphetamine-type stimulants (ATS) in Central and Eastern Europe (CEE) are best understood in historical context. ATS drug use, control and treatment in the region can be largely comprehended as artifacts of the social and political economies and ideologies of the former Soviet Union and its satellite countries. In this chapter we draw upon our own studies and the available data regarding ATS use from several countries in the CEE region. We review the continuity and distinctions in the social structure of ATS use that continues to be predominated by localized homemade production and small group consumption patterns that were a product of the austere and controlled conditions of Communism. We then describe the health consequences for current users of ATS as being shaped by diverging paths from a legacy of punitive prohibition and drug treatment aimed at controlling individuals’ threat to the collective interests of the state as suggested by the totalitarian regime. As the CEE geo-political landscape grows ever more complex, multiple forms of reliable data are crucial to ensure state responses to ATS use that reflect fidelity to sound public health policy and programming, as well as evidence-based treatment.

1. Introduction: illicit drug use and recent social history in CEE

The recent social history of Central and Eastern Europe has significantly influenced the use of psychotropic substance use in this region and continues to do so today.

Before the rise of communism, patterns of drug use in Central Europe and Eastern were much alike those in Western Europe. Into the early 20th century, drugs like opiates and cocaine were unregulated and their use in Patent Medicines was widespread (de Kort, 1995). In parts of Europe where poppy seeds remain a staple of the dessert menu, opiates were part of folk medicine and represented monetary value in many rural communities. Stricter regulation of psychoactive drugs gradually resulted in drug trafficking and use gradually going more underground, but illicit drugs remained part of trendy nightlife in most European capitals and major ports. Drugs —
whether cannabis, cocaine, morphine or heroin — were often found where high-life met low-life and left their traces in music, literature and art. But, the establishment of the Soviet Union and its post-World War II expansion of hegemony westward resulted in Central and Eastern Europe (CEE) going into distinctly different directions, not only politically and economically, but also culturally, from Western Europe.

With respect to the theme of this volume, we first of all argue that during the 1970s and 1980s a Soviet drug culture developed that was radically different from western countries. Partly this development was fed by the different concepts of youth that emerged after WWII on different sides of the Iron Curtain. While in the market economies of the West new youth cultures developed in a time of increasing prosperity and decreasing parental control, Eastern youth was subjected to state control through the Pioneers, Komsomol, Socialist Youth Union and other communist party youth movements.

When countercultures, such as the Beat Generation and the hippies popularized drug use among youth in the Western hemisphere, few Eastern youngsters caught on and most made do with alcohol. Those that did catch on (and developed a drug appetite) had a problem, as Western drugs, known from Western media and popularized by Soviet anti-drug propaganda (that linked Western drugs to the needle) were not readily available. When in the west an illicit global industry started catering to the drug tastes of the hippies and successive customers, the closed borders in the East resulted in a situation in which young people that were intent on using drugs had to turn to alternatives that were locally available or could be produced locally. And so they did.

First of all, just as drug experimenters in Europe and the USA used the Merck Manual to identify psychoactive compounds in the 1960s and 1970s, drug users in CEE during the late 1970s and 1980s gained knowledge of the psychoactive properties of various medications, such as morphine (Steklo¹), Tramadol (Tramal®), Phenmetrazine (Fenmetrazin®, Dex), codeine and phenobarbital containing composite analgesics (e.g. Alnagon®) or Ketamine (Ketalar®). All of these diverted drugs have found their way into syringes and veins. [pic. Ketamine IDUs-john r.]

During the 1980s various simple chemical recipes for producing potent injectable drugs, using natural ingredients or diverted medications and household chemicals, spread through underground drug user networks throughout the Communist world. In Poland the production of an injectable opioid cocktail from poppy straw, called kompot (and cheornaya in Russian because of its black color), was traced back to chemistry students in Gdansk (Alcubes et al., 1998), while in Czechoslovakia in addition to an opioid mixture made of pharmaceuticals containing codeine (called braun because of its brown color), the recipe for pervitin or piko (methamphetamine) was attributed to a Capo of one of Prague’s squads (see below) with the pseudonym Freud who had a few semesters of chemistry from technical university under his belt

¹ „glass“ in Russian
(Zábranský, 2007). The widespread presence of drug user/producer collectives across Central and Eastern Europe suggests that in many places creative drug users turned to their chemistry class books to emulate the drugs of the West.

Similar activity occurred regarding the production of amphetamine-type stimulants (ATS) derived from ephedrine or pseudoephedrine later in the time elsewhere. Following the publications of a number of informative books about vint culture in Russia, such as Nizshij pilotazh (Low Flying) by Shiryanov in 2001, an important vehicle for the dissemination of information on the preparation of these compounds in the Russian speaking world became the internet, especially the now defunct website www.vintclub.ru. Thus, drug users throughout this region transcended their parents’ tradition of “самогон” (samagon, Russian for moonshining or bootlegging alcohol) into a whole new dimension of meaning. One of the most troubling aspects of this development is that most recipes resulted in drugs that were meant to be injected instead of being consumed by less dangerous and addictive routes.

We furthermore argue that the Soviet Union developed specific drug laws and systems of substance abuse control and treatment (Butler, 2003). Inspired by Communist ideology, Soviet drug legislation, its enforcement and the Narcology system emphasized state control over the individual. Cloaking state control with the white coat was an almost universally accepted practice in communist psychiatry. As we explain below, the Soviet idea of treatment for substance abuse (and other social diseases) was characterized by a sequential execution of increasingly punitive and compulsory measures. Its involuntary nature reveals that legislators and health authorities had little confidence in voluntary actions of citizens.

Narcology and Soviet drug legislation served as models for most Central and Eastern European countries after WW II (Grund, 2003). Thus most countries inherited severely repressive legislation pertaining to drug users and other minorities considered deviant. But unlike the positive movements in various CEE countries concerning the civil rights of e.g. homosexuals or more pragmatic approaches to prostitution, the situation regarding drug control remains repressive and prohibitionist especially since Western approaches to drug use are essentially not much less repressive. In sum, the transition away from the Soviet system did little to reverse restrictive and counterproductive laws and policies related to drugs.

While few reliable data are available, the 1970 and 1980s in most Central European countries saw drug use remaining largely part of a subcultural undertow. But in Central Asia, use of opium and subsequently heroin turned out to be a growing side effect of the Afghan War (1979-1989), while in Russia veterans that had picked up an opiate habit during their service introduced drugs and drug knowledge to the friendship networks they returned to. During the turbulent 1990s the use of homemade opiates and amphetamines increased drastically throughout the region. Whereas Czech Police and medical authorities estimated the number of all illegal drug
users\textsuperscript{2} around 30,000 in the Czechoslovak Socialist Republic (15 million) of the 1980s (Nožina, 1997), in 1998 the estimated number of problem drug users (90\% injectors) in the Czech Republic (10 million) was 33,000 (Mravčík and Zábranský, 2001). Only halfway through the 1990s did this come to the attention of the police, researchers and health authorities. When agencies such as the WHO and UNAIDS realized the scope of the problem, yet another level was added to the meaning of samagon, as throughout the FSU largely ignored epidemics of drug injection set the stage for the epidemics of HIV and hepatitis C infection that now afflict the region.

Without a doubt, the introduction of the market economy and open borders has significantly expanded the drug economies in CEE countries, but this seems to have particularly affected the opiate economy. Heroin trafficking and use has replaced traditional home-made injectable opiates from poppies or pharmaceuticals (in e.g., western Russia, Ukraine, Poland, Czechoslovakia, and the Baltics) or opium gum (in e.g., Central Asia and Asiatic Russia), although outside Central Asia this is often limited to the larger and more prosperous cities; in poorer cities and in rural areas users still primarily inject home produced opiates.

In most CEE countries a similar trend towards criminal professionalization around the production and distribution of ATS is far less apparent. Therefore, the tradition of kitchen production continues to dominate stimulant use throughout the CEE region. Consistent across the region is the use of ephedrine or pseudoephedrine as the starting material; what differs is whether the starting material is reduced to methamphetamine or oxidized to methcathinone. Also important in the context of recent and future EU expansion is that use of ATS is more widespread in the western parts of the former East Block, that is, in nations now inside or bordering the EU. Over time, this may influence patterns of drug use in the entire European Union.

In this chapter we focus on the two aspects that distinguish amphetamine and other drug use in CEE from that in Western Europe: the tradition of kitchen produced amphetamines and opiates use and the Soviet narcology approach. We describe the production processes of methamphetamine and methcathinone, the networks that market them, and their consumers. We furthermore describe the treatment available to stimulant users.

2. Data sources

Data on methamphetamine use in Central Eastern Europe are limited. This chapter is based on a review of published and grey literature, and the authors’ research and policy work (both published and unpublished) in various countries of the region, which often included observational field notes and transcripts of interviews with drug users. The Eurasian Harm Reduction Network (EHRN) facilitated a call for methamphetamine-related information from the region that resulted in a number of unpublished manuscripts. We have furthermore checked a number of issues with prevention and

\textsuperscript{2} All illegal drug use, from marihuana and (diverted) psychofarmaca, alone and combined with alcohol, to braun and pervitin.
treatment professionals from the region. Specifically in preparation for this chapter, interviews were conducted in Prague with a former methamphetamine user and with an outreach worker who has worked at “cooking flats” for the last 15 years.

3. Self-produced methamphetamine and methcathinone: a primer on kitchen chemistry

Both methamphetamine and methcathinone are ephedrine-derived stimulants that appear to exert their psychopharmacological effect by a common mechanism that promotes the release of dopamine in the brain. Methamphetamine is known in the CEE region under names like *pervitin*, *vint*, or *bielie* (white); methcathinone is commonly referred to as *jeff* or *boltushka*.

The results of consuming these drugs, at least initially, include senses of well-being, physicality (including sexual stimulation), increased energy, and increased attention. While the chemical structures of methamphetamine and methcathinone are similar, there are differences in the duration of the effects of each drug, the extent to which each heightens the above-mentioned psychological effects, and the process required for their chemical synthesis. Methamphetamine is produced by reduction while methcathinone is produced by oxidation, which is a simpler, less dangerous but less favored chemical reaction. The starting material, either ephedrine or pseudoephedrine, can be recovered from diverted decongestant and cold medications or from Chinese herbal preparations of ephedrine. Here we describe the processes that drug users use to produce these powerful stimulants.

[about here figure 1]

**Extracting ephedrine**

Ephedrine and pseudoephedrine are used in a variety of common prescription medications and over-the-counter preparations in the CEE region, including cough syrups (Solutan®), tablets, herbal energizers, crèmes and ointments. As one methamphetamine cook from Russian city Kazan pointed out, extracting ephedrine from such preparations that are mixtures of many ingredients with a wide range of solubilities and viscosities requires specific knowledge, skills and ingredients:

> “After evaporating the alcohol, the content of a (50ml) bottle of Solutan is mixed with an alkali (e.g. NaOH) and gasoline and shaken vigorously. After

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1. The German name for the drugs used from 1930s; in Czech and Slovak Republics commonly abbreviated to „piko“
2. Russian word for „chatterbox“
3. Pseudoephedrine is a diastereomer of ephedrine (natural stimulant found in Ephedra sinica, E. Equisetina, E. gerardiana and other Ephedras. It is also produced industrially using yeast of the Saccharomyces coreanus strain. It is an active ingredient of many decongestants of different formulas (Sudafed®, Modafen® , Adcil Allegra®, Claritine®, Panadol®, Sinifed®, Zyrtec® and many others). For the reduction of both pseudoephedrine and ephedrine into methamphetamine the so called Birch reaction is used. In the USA, Asia and elsewhere, until the late 1990s P2P (phenyl-2-propanone) was used as a precursor instead of pseudo/ephedrine in a slightly different reaction, resulting in a comparatively mellow product (a racemate of D- and L-optical isomers, whereas the Birch reaction results in a pure D-isomer, which is much more potent).
shaking, the liquid separates into 2 layers; the top yellow one contains the ephedrine, and the bottom, dark red one contains the waste. The yellow separation is filtered and funneled into another bottle, where HCL is added followed by further intense shaking. As a result, crystalline flakes appear at the base of the bottle, ranging in color from white (best) to light red (poorer quality). The gasoline is poured off and evaporated. The flakes are subsequently added to about 5ml of water. More shaking results in a white liquid ephedrine solution, which then is dried on a standard ceramic plate or lab glass over moderate heat, leaving a soft crust of white ephedrine crystals. One bottle of Solutan will produce about 0.8 gr. of these ephedrine crystals, ready for making vint. (KSI field note excerpt, Kazan, Russia, 2004.)

There are many local recipes for extracting (pseudo-)ephedrine across CEE. For example, in the Czech Republic, toluene or tetrachlorethylene is usually used instead of gasoline. Czech pervitin cooks consider gasoline inferior, “unimaginable guck” according to one Czech pervitin cook. (TZ, interview with ex-user, Zlin, Czech Republic, 2008)

**Preparation of methamphetamine**

Sergei arranged his materials on the kitchen table. He tapped out about 1 gram of ephedrine crystals onto a magazine, then added red phosphorous powder from a small plastic bottle, about 3/4 the volume of crystals. He mixed these together and poured the mixture into a small brown bottle. After adding a few granules of iodine, he put on the bottle cover without the tube and holding his thumb over the opening swirled the contents vigorously, saying that the goal is to homogenize and start the reaction. Soon thereafter the mixture started bubbling. Small silver balls formed, which then formed one larger ball. After about 5-6 minutes he was satisfied with a dark and slightly reddish substance. He lit a candle, took off the stopper, added a few drops of sulfuric acid, put the pipette into the rubber stopper and re-capped the bottle. Holding the bottle by the stopper, he moved and turned the bottle over the flame, explaining that the goal is to cook without too much intense heat and obtain a specific aroma, reminiscent of apples or violets. He smelled the mixture repeatedly, explaining that being able to recognize the appropriate smell is the key to making good vint. After about 15-20 minutes he removed the cover and blew the smoke away a few times. He then added 5cc of water into the reactor bottle, placed his thumb over the top and shook it hard. By now the color was lighter, almost greenish. Slava then slightly bent the tip of the needle on the 20cc syringe and rolled up a ball of cotton over the tip. He said this is the “mitla,” or, the broom. Sergei drew up the solution from the reactor bottle, swiping the sides of the bottle clean, and then squeezing the cotton with his fingers to extract the last little bit. He discharged the solution into the water glass and added about a gram of soda, which started a slight reaction. Slava then made another broom and drew the final solution back up into the 20cc syringe. He said that they will wait for Sergei’s wife to return from work before injecting the vint. (KSI field note excerpt, Kazan, Russia, 2004.)
In total the preparation of methamphetamine in this field note took about 45 minutes. Normally this may be somewhat shorter as Sergey and Slava made extensive efforts to explain the cooking process. While the preparation of vint requires a level of sophistication in chemistry and cooks prefer the protected environment of an apartment’s kitchen, vint can also be cooked outside as the first author observed on the bank of the Pskova river in Pskov, Russia in 1999. [Picture of vint cooking]

The preparation of methamphetamine witnessed in the Czech Republic during field research by the second author was of the same chemical nature with slight variations in chemicals used, but the kitchen lab equipment was slightly more sophisticated. Czech pervitin cooks see a thermometer as imperative for the proper preparation of the drug, which relies, according to Czech traditional drug lore, for a large part on the “magical temperature of 127°C.” “Over 132°C everything would be fucked up” (field notes of the researcher). Another difference is that Czech pervitin cooks normally crystallize the solution Sergey and Slava ended up with and subsequently use fresh (sometimes distilled or even physiological saline-) water to dissolve the crystals and inject. Injecting the cooked solution immediately is frowned upon by Czech pervitin users. As one injector explained, “That is something too bad to do even in the worst cold turkey—you can wait another 15 minutes, can’t you?” (ibid). Crystallization further represents a more sophisticated measure of quality control for both the cook and the user. The color of the resulting crystals allows for assessment of quality, as another explained: “When it is yellowish, it means too much acid being added and that is no good for your veins; pink and red means remnants of phosphor and that poisons your nerves and brain; and grey pervitin means that temperatures were bad and then the effects of pervitin are bad, too: you get too jittery, and sometimes paranoia.” Last but not least, crystallized pervitin can be crushed and the powder snorted, which is favored by recreational and younger Czech users.

**Preparation of methcathinone**

Contrary to the reduction of ephedrine to methamphetamine, methcathinone is a product of oxidation of (pseudo)ephedrine. This reaction is gentler and less prone to creating a toxic working place. However, the reaction is quite exothermic and the heat generated can cause the expansion of gases that can explode closed reaction vessels, as two of the authors learned from personnel experience. Therefore, any open glass vessel will do as we can see in the following excerpt of a fieldnote:

Denis explains that *jeff* (methcatinone) is made of ephedrine, household vinegar, permanganate and water. Preparing *jeff* is very easy and straightforward, he says. He puts the ephedrine powder in a drinking glass, adds water, vinegar and the permanganate. When the permanganate hits the water, the solution turns a deep purple. He stirs the mixture vigorously for some 15-20 minutes at room temperature. He looks at and sniffs the solution several times, which slowly changes color to a dark brown. When this is the case he draws the drug into a 20ml syringe through a cotton filter, pulling up about 15ml of clear
and colorless liquid. He attaches a new (large bore) needle to the barrel and shoots the contents into a vein in his right underarm. This clearly produces a big rush as he lies down on the bed and closes his eyes, but within 10 minutes he is participating in the conversation again. (JPG field note excerpt, Pskov, Russia, 1999.)

As becomes obvious, the preparation of methcathinone is significantly shorter than methamphetamine, about 15-20 minutes. But, despite this shorter cooking time and the more challenging chemistry of methamphetamine, (pseudo)ephedrine reduction to methamphetamine is generally favored over methcathinone, since the former produces a stronger and longer-lasting effect. But which drug is prepared largely depends on the other chemicals available and the knowledge of the chemist. Better informed respondents suggest that methcathinone is prepared when the chemicals for methamphetamine are not available or when one does not have time to prepare methamphetamine, which takes about twice as long as cooking up methcathinone. We have found that those with insufficient chemistry knowledge reported to us that they were making vint, but an analysis of their descriptions of the process revealed them to be making Jeff.

4. The setting of home-produced stimulants: users, producers, networks & markets

Both of these processes, with many variations, were rediscovered and adapted to the limitations of Kitchen Chemistry under the days of Communism, as were the many recipes for home made heroin, from poppies, opium gum and opioid (e.g. codeine) based pharmaceuticals. Stimulant recipes remain widely circulated up to the present day in many former Communist countries. Similarly, as drug use continues to be severely punished under post-Soviet law, manufacturing of ephedrine-based stimulants for anything more than an occasional high for a small group of friends requires a sophisticated level of underground organization.

John (1986) described groups of drug using friends and associates in the Prague drug scene of the early 1980s, called squads, in which individuals from different walks of life took on specialized roles and skills in the drug production process (supply of ingredients, chemicals, (kitchen) laboratory equipment, processing location and chemistry skills) were divided between squad members. Before the political changes, methamphetamine was almost exclusively produced and available in these tight-knit friendship groups. According to Zábranský (2007) the “social inclusiveness” of the squads, in which youth and young adults from families of workers, intellectuals and Communist nomenclatura alike participated and collaborated, is an example of the Communist-induced social leveling.

During the 1990s the authors have observed this phenomenon in several CEE cities and it remains the case that many drug injectors in the larger cities are fairly well educated (Kozlov et al., 2006), although they are also un- or under-employed and have high levels of arrest and incarceration (Booth et al., 2008). But in particular in
smaller cities and rural areas, drug injection has over the years become increasingly associated with unemployment, poverty and social exclusion (Chintalova-Dallas et al., 2006; Balakireva et al., 2006; Grund, Öfner & Verbraeck, 2007; Schiffer & Schatz, 2008; Atrill, Kinniburgh & Power, 2001).

As in the West, diffusion of illicit drug patterns seems to go along with social descent — that is, illicit drugs are mostly introduced in rather exclusive (middle class or, as in Czechoslovakia, socially leveled) environments, but when they spread into wider society, they tend to seek out more vulnerable populations, in which they merge with more serious social and health problems. Such Disease Clustering (Knox, 1989) or syndemics (Singer & Clair, 2003) can often lead to increased visibility and public concern. According to March and colleagues, personal, social, and economic conditions are all linked in a process of social exclusion that compounds the problem of drug misuse (March, Oviedo-Joekes & Romero, 2006).

For example, throughout CEE minority populations are disproportionately affected by drug injection and HIV, in particular the Roma (Grund, Öfner & Verbraeck, 2007). But in e.g. Latvia and Estonia young Russian (and Roma) males are overrepresented among problem drug users, and in Estonia HIV prevalence among drug users is concentrated in those of Russian ethnicity (Uusküla et al., 2007). This has been linked to the geopolitical changes that turned the Russians into a new disenfranchised minority with all the associated problems (Downes, 2003).

Minority and other problematic users mostly consume opiates in this region. As in the West, stimulants seem to attract more differentiated user populations with more varied use patterns. In the Czech Republic, pervitin use is reported in all social classes, while in many of the larger cities in the region (recreational) use of methamphetamine is part of the dance scene (Zábranský, 2007). Methamphetamine users are mostly younger than opiate users (Balakireva et al., 2006; Chintalova-Dallas et al., 2006). Balakireva et al. (2006) suggest that for many Ukrainian youngsters amphetamines may be the first hard drug they use, often by injection.

Our studies in Russia and other post-Soviet countries suggest that many characteristics of the social structure of methamphetamine use and production have remained largely unaltered after the regime change. But networks of methamphetamine users have become larger, but less inclusive and more concentrated in larger social networks of often disenfranchised youth who may or may not experiment with (injectable) drugs (Balakireva et al., 2006; Des Jarlais et al., 2002; Miovský and Zábranský 2001). In a study conducted in St. Petersburg in 2002-03, 37% of the drug users had injected a stimulant in the month prior to interview and only 4% had injected stimulants exclusively. Nevertheless, HIV incidence was associated with stimulant injection and the likelihood was highest in those who injected only stimulants (Kozlov et al., 2006).
While in Lithuania CEE laboratory produced amphetamine sulphate seems to have become available (Kestutis Butkus, Association “TAVO DRUGYS”\textsuperscript{6}, personal communication, 2007), in most countries home production remains popular. As activities unknown during Soviet times, such as street drug markets or mobile phone based drug markets contribute to weaker and more diffuse drug use networks, the modus operandi of home produced drugs requires drug users to collaborate and regularly socialize with each other. Our studies indeed indicate that most home produced drugs are shared among the members of small, often connected networks of mostly 2-5 drug using friends. Users pool money and collaborate in covertly organizing drug production and consumption, and in acquiring the required precursor and chemicals. Some have access to the precursor (ephedrine), e.g. through the family medicine cabinet or (hospital) pharmacies, others obtain processing chemicals. Another can provide his kitchen, but the cook plays a central role, as only s/he has the knowledge to “Practice a Little Witchcraft,” as one Russian vint cook explained. Most chemicals required in the home-production of ATS can in principle be purchased from pharmacies, drug stores, battery stores and gasoline stations, but in practice, quite some efforts are required to obtain all chemicals, especially when purchasing on a regular basis and when there is a need to avoid drawing attention to oneself. But this is not always the case. In 2004, we witnessed open sales of all reactants necessary to make vint at the Lubyanka metro station in Moscow. An old woman was selling Solutan\textregistered in blue bottles on one stairway and a veteran of the Afghan War missing one leg at the knee was selling the iodine and red phosphorus on the adjacent stairway. The police regularly patrolling the station chose to ignore them, but did move to harass particular young men who approached the vendors. Exactly how the police decided whom to harass was unclear, but it was clear that not all purchasers where subject to harassment.

Since changes in the drug laws in Russia and most other CEE countries in the second half of the 1990s, medications containing ephedrine or pseudoephedrine are officially only available on prescription. IDUs in Russia explained that nowadays Solutan\textregistered and other ‘precursor’ medications are harder to get from pharmacies. Nevertheless, our (RH, KI) efforts to purchase Solutan\textregistered from pharmacies in St. Petersburg without a prescription were successful. And in far eastern Russia, Chinese ephedrine tonics still appeared to be widespread during our visit there in 2004. Stricter controls have reduced the availability of diverted pseudoephedrine-based medications and raised the price of e.g. Solutan\textregistered several-fold in the shadow economy. But a number of medications containing pseudoephedrine are commonly available over the counter.

Where there is a demand, it will likely be met. Over the years methamphetamine injectors bought precursors and processing chemicals from various types of suppliers. During the second half of the 1990s babushki (“grandmas” in Russian) sold their ephedrine-based prescriptions on the squares of St. Petersburg. [picture John Ranard] More recently users report buying ephedrine tablets and industrial crystal ephedrine, imported illegally from China, Romania and other countries. While these babushki

\textsuperscript{6} TAVO DRUGYS is a Lithuanian drug user advocacy and self support organization.
disappeared from the streets in some places, ephedrine and pseudoephedrine now often reaches users through sales at unregulated "flea markets" like one held on Fridays and Saturdays in Yekaterinburg, from members of disenfranchised (minority) communities, or via small entrepreneurs who are used to navigating the darker shades of gray in the shadow economy. And, as already indicated, medications containing small doses of pseudoephedrine can be purchased over the counter, without a prescription.

The above production fieldnotes suggest that home production of methamphetamine or methcathinone in Russia (and other fSU countries) usually ends up in a small batch (containing ≤ 1 gram of the active drug) of liquid stimulant that is injected in a group of drug using friends—either immediately or shortly after. This fitted rather snugly with the Soviet tradition of routinely injecting antibiotics and other medications [Picture. Soviet nursery rhyme & poster]. Eastern European drug users seem to have fewer hang-ups concerning sticking a needle in their arm. We have not observed users in Russia or other fSU countries who dried and crystallized their product, either for personal storage or small-scale sale to other known stimulant users. But in the Czech Republic — where in contrast with all other countries in the region, methamphetamine is traditionally not a secondary, but the number one illicit drug — our fieldwork and focus groups with low threshold drug workers suggests a higher degree of commoditization.

The beat of the scene in Prague is that piko produced by small user-producers is first crystalized and consumed after re-dissolving the crystals in water. A part may be stored "for later" or for small scale business. Czech "squads," typically about 3-8 people large, often end up with 1-3 grams of pervitin. Usually injection drug users themselves, these small scale producers are the source for pervitin crystals for other (known) users. Injection is also the prevailing pattern for other problem drug users (some 80 % of those in contact with specialized medical and/or nonmedical services).

Since 2001 the use of pervitin in the Czech dance scene has steadily increased (Kubu et al, 2006; Škařupová et al, 2008). Among recreational and occasional users the drug is mostly snorted, especially within a distinct sub-population of stimulant users, subject to different trends and influences such as the popularity of XTC in the (international) dance scene. But recently methamphetamine is often marketed in the Prague dance scene as cocaine; this fake cocaine7 is reflecting the increasing popularity and higher price of yet another "western drug" in the Czech Republic. The increasing popularity of pervitin among recreational users in the (commercial) dance and club scene may well induce further professionalization of production and trafficking of methamphetamine in the Czech Republic, from "home production" to "garage production". In 2008, for the first time in Czech history, the Czech police reported a crackdown of 2 methamphetamine labs in garages in the Prague suburbs with a reported capacity of tens of grams of pervitin per day (see, e.g., ČTK 2008).

7 such fake cocaine is called "pikain"—which is a combination of the terms "piko" and "kokain"—in the recreational drug scene
Nonetheless, such market changes are difficult to assess since few actual studies have been conducted. After the shutdown of a legal pharmaceutical ephedrine factory close to Prague in 2004/5, there was a noticeable shift towards the use of pseudoephedrine containing medications by small-scale producers. Local police estimate that 90% of the methamphetamine on the market comes from small-scale home production. However, Zábranský (2007) suggests that the proportion of home produced methamphetamine on the Czech markets may be overestimated by the police, as they only catch small-scale producers (often after neighborhood complaints), while the Czech customs regularly seize larger quantities (kilos) of ephedrine imported from Asia, Balkan countries and Eastern Europe that most probably have their (so far unidentified) buyers in the country.

5. Current epidemiology of stimulant use in selected CEE countries

Few reliable data are available on stimulant use in this region. Therefore this review of current epidemiology is limited and spotty in its scope. Here we present data on new EU member states, Russia and a number of FSU states. Many surveys in the EU countries collapse methamphetamine and amphetamine (sulphate) into one category, making it impossible to make inferences about trends in consumption of the different ATS (EMCDDA 2008).

**Czech Republic**

According to a recent overview, methamphetamine use and abuse is rare compared to other illegal drugs in the EU with two marked exceptions: the Czech and Slovak Republics (Griffiths et al. 2008). The Czech Republic represents a special case, different from other CEE countries as for the last 35 years pervitin has consistently been the main problem drug. Methamphetamine accounts for two-thirds of the problem drug users\(^8\) in the Czech Republic (presently estimated at 31,000). *Pervitin* users represent the majority of those seeking drug treatment in the Czech Republic (58%, i.e. 4,889), and 62% (2,528 persons) of first-time treatment applications in 2006, and they represent 63% (i.e. 12,100 persons) of drug injectors who used low-threshold services in 2006. *Pervitin* users in the Czech Republic seek treatment services sooner after starting to use the drug and have more treatment episodes before achieving abstinence than users of opiates and other illicit drugs. Czech pervitin users do not differ in seroprevalence of viral hepatitis C compared with Czech opiate injectors (both about 35%) and the prevalence of HIV is very low in both groups. Contrary to its prominence in problem drug use, pervitin is only the third cause of fatal drug overdose. In the Czech general population or school surveys *pervitin* ranks fifth among illegal drugs consumed. Only 5% of estimated Czech yearly consumption of pervitin (3,133 kg) is consumed in the recreational drug scene (Vopřeval & Český statistický úřad, 2005), but the lifetime prevalence in clubbers is steadily increasing (Kubů et al.,

\(^8\) According to the EMCDDA definition (EMCDDA 1999)
2006; Škařupová et al, 2008). Overall, 60% of 2,165 of 2006 drug arrests were associated with pervitin.

**Slovak Republic**
What is now the Slovak Republic never experienced major problems with methamphetamine when it was part of the Czechoslovak Federative (Socialist) Republic, during the Communist regime (until the end of 1989) or in the transition period until 31 December 1993, when Czechoslovakia was split into two separate countries. Around 2000, however, Czech know-how on methamphetamine preparation started to diffuse into Slovakia (Zábranský 2002), soon followed by a sharp increase in both percentage and absolute number of those in abstinence-oriented medical treatment due to methamphetamines (NMCD 2007). Methamphetamine now represents the most frequently cited primary drug among those seeking treatment in Slovakia and about 38% of those seeking harm reduction services are methamphetamine injectors.

The estimated number of problem users of pervitin is 13,000 (of the estimated 18,900 of all problem drug users) (NMCD 2007). A recent study of drug using sex workers in Bratislava also suggests a preference of pervitin over heroin. 63% of 98 sex workers used pervitin regularly, and 37% used heroin (OZ Prima 2007). Due to major (drug) law reform in 2006, recent criminal statistics in Slovakia are not available. However, the overview of Griffiths et al (2008) suggests that of EU countries, only Czech Republic and Slovak Republic reported dismantling of methamphetamine (kitchen) “laboratories” in 2004 and 2005 (no newer EU-wide data available).

**Other new EU member states**
Estonia reports one methamphetamine laboratory dismantled in 2005 and substantial seizures of methamphetamine (54 kg in 2004 and 13.5 kg in 2005) (Oole et al., 2006). Estonian population surveys of 1998 and 2003 and ESPAD (European School Survey Project on Alcohol and Other Drugs) surveys suggest that in the general and school populations (meth) amphetamines are most frequently used after cannabis and ecstasy. Tallinn has a vibrant club culture and, as in many other places, the consumption of illicit drugs (such as ecstasy, ATS, and cannabis) is an integral feature of this youth subculture (Allaste & Lagerspetz, 2002). In 2005 the unofficial ‘guestimate’ was that there were between 10,000 and 15,000 IDUs in Estonia, primarily opiate injectors, while a significant minority injected ATS. Opiate injectors are mostly Russian speakers, while ATS injecting seems more common among ethnic Estonians. Estonian drug experts emphasized that IDUs in Estonia, in particular stimulant injectors are very young. NGOs that organize needle exchange in Tallinn, estimated that there were 6,000 to 10,000 IDUs in the capital in 2005, of those, 60% reportedly injected heroin and 40% ATS (Grund, 2005).

According to UNODC’s World Drug Report 2007, the highest prevalence of ATS use in Europe is reported in Estonia (and the UK and Denmark) (UNODC, 2007), but only 1.4%

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9 It is not always clear whether the term “Amphetamines” used in the WRD 2007 refers to all amphetamines. In the presented prevalence estimates it obviously does not consider the use of methamphetamine in the Czech Republic.
of drug treatment clients in Estonia are ATS users (unpublished drug treatment data, NIHD, Estonia). First time and multiple visitors of syringe exchange programs in 2006 most frequently injected amphetamines (53%) in the last 4 weeks, followed by heroin (40.9%), home produced opiates (38.9%) and fentanyl (9.1%) (Abel-Ollo et al., 2007). A behavioural respondent driven sampling study of IDUs found that 63% had used amphetamine within the previous four weeks while for 19% it was their main drug (Uusküla et al., 2005).

The Lithuanian ESPAD survey of 2003 measured six percent life time prevalence of amphetamine use in the school population (Hibbell et al., 2004). In 2006, 16 kg of methamphetamines were seized from Lithuanian citizens arrested abroad for possession or smuggling of larger amounts of drugs, in Denmark, Belarus, Sweden and Russia (Lithuanian Annual Report to EMCDDA 2006). 64% of Latvian of clients of low threshold centers are ATS users, yet most drug treatment at the Riga Centre of Psychiatry and Addiction Disorders is provided to heroin injectors (Grund, 2007). The Latvian Organized Crime Enforcement Bureau identifies Lithuania as the source of methamphetamine (Latvian National Focal Point 2008).

Griffiths et al (2008) refer to “relatively high levels of methamphetamine use among some population groups in Hungary.” According to the Hungarian Annual EMCDDA Report, the number of people in treatment due to amphetamine type drugs almost doubled between 2000 and 2006, to about 1500 patients. In 2006, six deadly ATS overdoses were registered (Drog Fokuszpont 2006).

A recent EMCDDA report (2008) mentioned anecdotal accounts of increasing methamphetamine use from several CEE countries including Latvia and Bulgaria.

**Ukraine**

A recent study from Kiev, Ukraine, suggests that 68.8 % of injectors in the city have injected pseudo/ephedrine based drugs in last month (Booth et al., 2008). Another recent Ukrainian study among 808 young (under 24) IDUs suggests that, after home produced opiates, stimulants (both methamphetamine and methcathinone) are most frequently the first drugs injected (Balakireva et al., 2006). Another study suggests that methcathinone or boltushka has become increasingly popular among the very young and very poor of the city of Odessa in the late 1990s and 2000s (Chintalov-Dallas et al., 2006).

**Russia**

Studies of Russian IDUs suggest that ATS are an important but secondary drug among Russian IDUs. In our studies from eleven Russian cities from 15% to 89% of IDUs had ever injected stimulants and 0% to 43% had done so in the 30 days prior to being interviewed, whereas 90% had injected heroin in the same 30 day period (Borodkina et al, 2005). There was an association between cities with high lifetime experience of ATS injection and high levels of recent ATS injection (Spearman p-value < 0.005). The six cities in which the majority of IDUs had lifetime experience injecting ATS also had highest levels of recent injection. In our studies conducted solely in St. Petersburg,
27% of 492 IDUs we interviewed between 2005 and 2008 had injected ATS in the 30 days prior to interview (White et al 2008). This is a decrease from 36% of IDUs who reported recent use seen in 2002-03 (Shaboltas et al, 2006). Our experience in St. Petersburg suggests that there is a small core of IDUs who use only ATS; during both periods, the percentage of injectors who injected only ATS was small, 5% or less of the individuals we interviewed. There is a larger number who will use both ATS and heroin, and the shift between drugs seems to depend on availability, since the period of time with the highest percentage of ATS injectors coincided with a drought in heroin brought on by the US invasion of Afghanistan.

**Other FSU states**

The second author’s regular contacts with treatment and prevention professionals in the post-Soviet countries suggest increasing concern with methamphetamine and methcathinone use in both urban and rural areas of Ukraine (see also Booth et al 2008, Booth et al, 2006) and increasing use in Moldova (Scicetinuc et. al, 2007). While they scored poor in terms of drug preference in a recent Georgian survey among users of harm-reduction services, ephedrine-based stimulants were the drugs most used in the month before the interview (Otiashvili et al., 2008).

6. Interventions

Globally, the abuse of methamphetamine and other ATS has become a primary concern only in the last 10-15 years. In most countries concerns over heroin and subsequently cocaine has dominated the research, policy and treatment agendas. The effects and physical, psychological and behavioral correlates associated with stimulant use are extensively discussed by XXXX and YYYY in chapter ZZ, while various chapter authors discuss (emerging) treatment approaches towards problem ATS use. [EDITOR, PLEASE FILL IN THE BLANKS] Worldwide, specific approaches towards ATS dependence are developing only slowly. In the CEE region not only has the shape of the drug culture been determined by the totalitarian past, but so too has the response to drug use and drug-related problems. The substance abuse treatment systems in place in this region have not responded well to the changing social risk environment (Rhodes, 2002) that was brought about by the political changes that have taken place since the early 1990s. In trying to understand this situation, we discuss the history of dependence treatment in CEE.

6.1 Historical context: Narcology, the Soviet approach to drug use and deviance

Trust is good, control is better

Most CEE countries inherited severely repressive vice legislation pertaining to drug users, sex workers and sexual minorities. Drug legislation and control have firm roots in the models of disease and deviance control of the former Soviet Union. Health care was organized on the same doctrine that defined the economy, the educational system, internal security and crime control, as well as just about every other aspect
of public life. Prioritizing collectivist ideals over individual citizens’ interests and rights, the state had appropriated responsibility for many aspects of life that in truly democratic societies are left, once within the legal parameters set by an independent judiciary, to the individual, ‘civil society’ and the market. The response to problematic alcohol use, drug use, and psychiatric problems and, for that matter, political dissent (“social diseases”) was organized on principles that left little room for the rights of the individual. Drug treatment may have been available free of charge, but in exchange individuals seeking this care were expected to give up many rights and privileges. And since drug users were viewed as deviants, little attention was paid to making drug treatment actually work. As a consequence, evidence-based treatment efforts have made only slow headway in parts of CEE.

The system of disease control was, at best, based on tacit consent and, at worst, mandatory measures. In cases of poor treatment outcome, relapse (drug use, casual sex), or non-compliance, health authorities quickly resorted to progressively more punitive measures in order to protect the interest of the collective and re-educate irresponsible individuals about their responsibilities towards the collective. If deemed necessary, control was asserted with the help of the militia and ultimately through re-education in social adaptation or labor camps, run by law enforcement authorities. The Soviet legislators and health authorities had little confidence in voluntary actions of individual citizens.

This philosophy permeated laws pertaining to drug use, prostitution, sexual minorities and infectious diseases, and was given expression through vertically organized health care systems of so called “narcology” that remain in place in many countries in the region. The narcology approach included a narcological commission, a system of patient triage by three senior narcologists, and three levels of treatment, (i) (nominally) voluntary ambulatory or in-patient treatment at a narcological dispensary; (ii) compulsory in-patient treatment at a narcological dispensary or other psychiatric institution; and, (iii) incarceration in a social adaptation institution, run by the Ministry of Justice or prison authorities. The latter two levels were based on court ordered sanctions. In short, narcology, the Soviet concept of substance abuse treatment was characterized by a sequential execution of increasingly punitive and compulsory measures.

Police and narcology/pyschiatry both played an important role in controlling vice in the USSR and its satellite regimes. “Moral Police” departments, whose primary targets were drug users, prostitutes and sexual minorities, had a separate status within the law enforcement structure. Traditionally, the police and narcology cooperated closely. Together they maintained the Narcological Register

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10 i.e. of medical discipline that has been seen as sub-discipline of psychiatry in (former) Soviet Union and has been dealing with „narcomans“- users of illegal drugs
11 Abbreviation in azbuka (cyrilic) for Союз Советских Социалистических Республик (Union of Soviet Socialist Republics)
(“narkalagičeskiy atschot”) and the local Chief Narcologist kept close relationships with the chief of the (narcotics) police.

In 1996 the first author, while conducting an assessment mission in Temirtau in northeast Kazakhstan, met with the chiefs of the AIDS center and the Narcology center. He proposed to invite the chief of police:

At next day’s meeting the police chief was indeed present. The first thing he said to me was: “How many narcomans do you want my men to pick up? 50? 100?” I did not respond and after a short silence he burst out in laughter and said he was only joking. Nonetheless, by arresting registered drug injectors is exactly how the authorities first found out about the HIV epidemic that was rapidly spreading in this town. (JPG, Kazakhstan mission notes, June 1996)

Thus, disease control was part of a wider scheme of population control by the state. Narcology was established to control people, not really to help them. Only when they behaved did patients deserve help. Treatment of any drug problem consisted mostly of detoxification only with drug users either back on the streets after one to three weeks (often more vulnerable to overdose), or, in case of repeat offenders, entering compulsory treatment in closed institutions. Narcology has not been based on generally recognized evidence-based concepts of addiction and best practice in treatment, while detoxification is perhaps the least complicated (and not inevitably necessary) part. Recent interviews with Russian narcologists and with head narcologists in several other fSU states confirmed that they recognized the inadequacy of their approach but a substantial number of narcologists also reinforced the idea that outcomes mattered less than maintaining the defense that treatment failure was the fault of the patient and not the fault of the treatment.

6.2 From Control to Treatment: A long and winding road

Within the context of the closed Communist society, Lenin’s adagio (trust is good, control is better) worked fairly well in dealing with classic infectious diseases (TB, STIs). The system never worked to control alcohol or drug abuse, and in the post-Communist era this system fell apart through chronic underfunding, decreased political support, but, above all, because of social demographic changes and increased freedom under unfortunate economic conditions. The result is a narcology system being completely out of touch with reality — including the changing morality and practices among youth about sex and drug use.

The rise in STIs in the region during the early 1990s should have been a warning sign hinting at widespread adoption of Western liberalized behaviors, with their attendant risks. Although the post-Soviet system did manage to control the increase in STIs, it could not handle the increase in drug use. Used to treating alcoholics, the narcology system (and the completely unconnected infectious disease control system) found itself ill-equipped when in the second half of the 1990s HIV and hepatitis infections exploded in largely undetected populations of IDUs throughout much of the fSU, most notably Russia, Ukraine, Latvia, and Estonia.
In contrast, similar epidemics have by and large been averted in most Central European countries. HIV has not significantly spread in the Czech and Slovak Republics, or Hungary, and its epidemic spread was controlled in Slovenia and Poland. Most Balkan countries have not reported many HIV cases either, although Serbia experienced a serious HIV epidemic among IDUs, of which the current status is not completely clear. While scientific evidence is scarce, according to Zabransky (In Press) the following elements are present in discussions on the absence of HIV epidemics in Central Europe: (i) a low level of HIV seroprevalence in at risk populations in early 1990s; (ii) the early introduction of harm reduction responses, such as government- or NGO-supported needle exchange programs (as early as 1991 in Slovenia and 1992 in Czech Republic); (iii) universal health insurance that allows at least a minimal level of treatment to everyone who applies; and (iv) quick reform of the centralized narcology-like system into more flexible systems of medical and social care for drug users with involvement of non-medical providers and the non-governmental sector (for that aspect, see e.g. Csémy and Elekes, 2001).

Restructuring pertinent legislation and the provision of health care, making them responsive to the large expansion of injection drug use, cannot be a stand-alone or one-time measure, but part of a larger, continuing, and strenuous social and economic transition process. The narcology ideology outlined above is still tangible in present legislative documents and in practice, in particular those relating to disease control and citizens considered deviant — drug users, prostitutes and sexual minorities. In several post Communist countries involuntary measures remain the defining feature of the response to these and other vulnerable groups.

Most western European countries, confronted with evidence of epidemic spread of HIV or hepatitis among its injectors, developed policies and services that have effectively controlled this aspect of the HIV epidemic. But CEE countries and in particular those of the fSU must now develop effective measures under great time pressure — to either curb or avert the twin epidemics of drug injecting and HIV. Soviet heritage in law and medical practice, the painful process of transition, and chronic underfunding all thwart swift implementation of necessary interventions. Furthermore, several post-Communist countries do not have a pre-1989 history of democracy. In all countries in this region, protagonists of harm reduction and evidence based interventions must face the lingering Soviet mentality that is out of sync with the principles of modern public health.

Lithuania, the Czech Republic and several other countries in CEE have abandoned narcology-inspired substance abuse treatment after the political changes — the Czech Republic did so as early as 1992. But e.g. in Latvia, Slovakia, other new EU member states and throughout the CIS/fSU, different variations of the centralized narcology system survive the transition to democracy. Thus many CEE countries still have a substance abuse treatment system rooted in totalitarianism, although — often under the influence of international organizations and funding, and to different degree in different countries — with more human face. The narcology approach in many of these
countries can hardly be labeled as addiction treatment or considered a scientifically based discipline, inspired by human rights and public health concerns. At best, it is a set of guidelines on providing detoxification, in most cases without follow up treatment. Problem drug use, or more correctly, any form of drug use is both criminalized and medicalized. Recreational use of illicit drugs is viewed as an early stage of disease, while doctor-patient relationships are characterized by inequality. With its history and present poor record, drug treatment for many drug users in CEE remains an unmerry go round, where possible to be avoided. This is evidenced by the decreasing use of narcology services in most parts of Russia (Heimer et al., 2007), which has also led to an under-reporting of the extent of the HIV epidemic, since it was through testing at narcology services that the epidemic growth of HIV among drug users first came to public attention (Feshbach & Galvin, 2005; Grund et al., 2003).

Nonetheless, several countries in the region have to various degrees introduced evidence based prevention and treatment methods towards problem drug use and HIV. This has remained by-and-large limited to opioid use. Quite a few fSU countries have introduced methadone treatment for opiate addicted people, but only recently have some begun scaling up MMT (Fiellin, Green and Heimer, 2008). In the last years substitution treatment for opiate addiction has been introduced in Estonia, Bulgaria, Ukraine, Kyrgyzstan, Georgia and Moldova, many with support of international organizations and GFATM funding (Fiellin, Green & Heimer, 2008). Likewise, in most countries in the region (mostly NGO-based) non-medical treatment (e.g. therapeutic communities) and harm reduction (needle exchange, outreach, condom provision) interventions have been developed in response to drug injection and HIV. However, in most countries the coverage provided by these initiatives remains limited due to structural underfunding and difficulties in maintaining a regular supply of harm reduction supplies or treatment medication. In Slovakia, harm reduction services experience a decrease in governmental funding and the needle exchange programs network that was rather insufficient so far is close to non-existence now. Shortages of drugs to treat HIV or to provide substitution therapy for opioid addiction have recently been encountered in Moldova, Georgia, Russia, and Ukraine. Without GFATM or other international funding many antiretroviral treatment activities and most harm reduction work in the region would probably vanish.

6.3 Treatment for ATS dependence

Treatment designed for stimulant users is non-existent in this region, except perhaps in the Czech Republic, which might have the longest history of illicit methamphetamine use (some 35 years). The difficulty in finding workable, evidence-based treatment for ATS addiction is not restricted to this region; little headway has been made anywhere in developing effective treatment approaches.

In the Czech Republic all substance abuse treatment other than for alcoholics was developed for pervitin users, since they were dominating the Czech drug scene into the early 1990s. In Communist times there were few users of homemade opiates in the Czech Republic, while heroin appeared only in 1992-3. When heroin use increased, heroin users were being treated in the same institutions and mostly on the same wards.
as methamphetamine users. After one interrupted unofficial substitution program in 1992 and another two years of “piloting,” in 1999 methadone treatment was standardized in the Czech Republic and presently over 600 heroin dependent people are in methadone treatment while some 2500 receive buprenorphine treatment.

At present, detoxification is the primary treatment mode for methamphetamine dependence in the Czech Republic and in other CEE countries where the abuse of ATS drugs is a problem. Detoxification services are rather widely available in the Czech Republic. Detoxified patients can be referred to either ambulatory or in-patient rehabilitation— including a wide spectrum of treatment schools from therapeutic communities to Cognitive Behavior Therapy). Post-detoxification drug treatment is provided by both state and NGO programs, and in a few private institutions. Whereas in opiates detoxification inter alia opiate-type pharmaceuticals are used quite widely, stimulant abstinence syndromes are alleviated only with anxiolytics, hypnotics or other psychotropic drugs used in opiate detoxification as well. Few provide after-care services, such as sheltered housing or job training and placement programs. Except for in the methadone programs, in all drop-in-centers, outreach programs, clinics, ambulances and therapeutic communities a majority of (ex) methamphetamine users and a minority of (ex) opiate users continue to be treated equally, that is with the same treatment philosophies and approaches. Even the Czech Republic does not seem to have escaped completely from the overall trends in this region that the primary drug treatment methods are abstinence-based, have been simply adjusted from (rather unsuccessful) alcohol treatment, and are not drug specific. That is, the part of treatments that is based in medical institutions make little distinction between alcohol, opioid and stimulant users.

If countries have implemented substance-specific treatment, it is methadone or other substitution treatment for opiate addiction. Stimulant substitution (e.g. with methylphenidate or dexamphetamine), contingency management, and other treatment options that might work with stimulant users have only recently emerged as topics of discussion among internationally-oriented treatment professionals, but their implementation is still a ways off. In the Czech Republic preparations have recently started for a clinical trial of substitution treatment with methylphenidate. Meanwhile, several Czech doctors experiment with prescribing medications such as Ritalin to their long-term, chronic patients. This practice is technically not at odds with the legal provisions concerning drug treatment and doctors have not been charged with infractions, although it is not sanctioned by medical board guidelines (see, e.g., Hampl 2004). A clinical trial on methamphetamine treatment using contingency management is planned for spring 2009 in the Czech Republic and possibly Slovakia.

**Discussion**

In this chapter, we have explored how the social history of Central and Eastern Europe (CEE) has influenced the use of ATS and other drugs in this region, the degree to which it continues to do so until today. We have attempted to describe a number of aspects of stimulant use, stimulant markets and provision of treatment in the CEE region, and the complex relation with recent social history. As researchers, we are still far away
from understanding this relationship. Policy makers should come to realize this when preparing drug legislation and policies. Measures aiming to repress home-based “labs” that manufacture ATS may have serious unintended consequences, e.g., paradoxical increase in the availability of ATS due to takeover of the market by large organized criminal groups, and the spread of HIV; of both there are quite a few examples from outside the region.

We described the tradition of kitchen produced ATS in CEE and the production processes of the two most common injectable ATS (methamphetamine and methcathinone). During Soviet times closed borders prevented not only the exchange of legal commodities, but also of illegal ones. Nevertheless, information about the western countercultures of the 1960s and 1970s did spark an interest in drugs other than alcohol among young people throughout the region, which resulted in the emergence of small, largely underground, pockets of counterculture. Whereas their parents distilled their samagon vodka, Soviet youth turned to the medicine cabinets and pharmacies (of which there are many in this region) looking for local highs. For example, though short-acting, ketamine (Ketalar®), diverted from (hospital) pharmacies, easily provided the idea of an LSD experience, in particular when injected. [Picture John Ranard?] Drug users subsequently turned to their chemistry books. In a time that both precursors and processing chemicals were easy to obtain, eastern drug users came up with their own version of heroin and amphetamines and soon various formulas started to circulate.

The small-scale production processes of these drugs dictated a specific type of organization and networking around the acquisition of precursors and chemicals, and the production and consumption of the resulting drugs. Methamphetamine is usually produced in groups of about three to eight users, who all have roles in the elaborate process that results in getting high. In these groups users not only share drugs, but many basic necessities and an important part of their time (Grund, 2001). Thus, the market conditions during the Soviet era resulted in particular drug consumption patterns that shaped the drug culture in the post communist countries.

Drug markets in the western hemisphere have produced rather different forms of social organization among drug users. In New York City, for example, Preble & Casey (1969) observed how the street(356,397),(750,415) heroin markets during the 1960s engendered a basic “dyad”, a partnership of two best buddies or lovers, in which both participants implicitly understand the common benefits of the partnership. Within these tight partnerships just about all commodities were shared, including drugs and needles. A combination of the explosive expansion of heroin use in the 1970s and the city's financial crises of the mid-1970's, when impoverished neighborhoods became blighted with abandoned buildings, abandoned buildings were converted into shooting galleries. In these locations, the protection of dyad was weakened and HIV passed rapidly among the previously unconnected networks of injectors who gathered there. By the early 1980's half of the injectors in these neighborhoods were infected with HIV (Marmor et al, 1987).
Grund (1993) described comparatively large neighbourhood-based networks organized around so called house addresses in Rotterdam (and other Dutch cities) where heroin and cocaine was sold and used on the spot. These house addresses succeeded the city-center street markets of the 1970s after law enforcement crackdowns inspired by neighborhoods’ activism against crime and nuisance. During the 1980s and 1990s these places dominated the Dutch drug scene and they were often tolerated by the authorities when nuisance in the neighborhoods remained manageable. While at face value the Rotterdam house addresses resembled the New York shooting galleries, the then implemented policy of normalization of drug problems (Engelsman, 1989; van de Wijngaart, 1990) engendered quite a different HIV risk environment (Rhodes, 2002).

While, due to widespread needle exchange, needle sharing was uncommon (Grund et al., 1992b), this tolerated indoor environment fostered another important HIV risk behavior, “frontloading” or syringe-mediated-drug-sharing within networks of drug using friends (Grund et al., 1991; Grund et al., 1996). This drug sharing behavior was later identified in the US (Jose et al., 1993), Russia (Des Jarlais et al., 2002; Grund, 2001) and elsewhere (Grund, 1993), and has been identified as a driving factor in the HIV epidemic in Eastern Europe (Abdala et al., 2006; Des Jarlais et al., 2002; Grund, 2001; Dehne et al., 1999).

Thus, the social context of drug use in different parts of the world and in different times seems to result in different risk environments in which the social response to and the availability of drugs and precursors (the macro risk environment) can be seen to determine the everyday drug taking patterns in the networks of users (micro risk environment) (Rhodes, 2002).

The recent social history of Eastern Europe has produced its own, Soviet style patterns of stimulant and other drug use that remain poorly understood by researchers and policy makers up to the present day. While epidemiological studies have informed us about the spread of drug injecting and its connection with the HIV and hepatitis epidemics in the region, the virtual absence of ethnographic research into actual drug use patterns, motives for, or the social context of drug use limits our understanding of the twin epidemic in this region. A comprehensive understanding is, however, crucial to developing effective policy responses towards illicit drug use — whether these are health or law enforcement interventions. In contrast to the stereotype presented by (post-Soviet) narcology, one of the few Russian ethnographies of drug users suggests that methamphetamine and opiate users alike are concerned about their own and friends’ health, undertake efforts at controlling their drug use, and are (interested in) practicing harm reduction (Sarang, 2007) - an observation confirmed by the small scale study on Russian-speaking drug users in Czech capital Prague (Zabransky and Janikova, 2008). HIV prevention programs could extend their reach by using the networks of drug user/producers in the proliferation of harm reduction information and supplies. In Rotterdam, the Netherlands, so called “collective” needle exchange, in which active injectors distributed sterile injection equipment to their peers, accounted for more than half of the city’s needle exchange volume in 1989 (Grund et al., 1992b). In Kazan, Russia, “pritons” (the Russian equivalent of shooting galleries)
provided the local harm reduction project an important venue to contact and reduce the risky injection practices of the priton clientele (Erwin et al., 2006).

But we have also described how efforts to control methamphetamine’s precursor ephedrine and the required processing chemicals have resulted in shifts towards its diastereomer pseudoephedrine and more frequent application of the simpler oxidation to methcathinone. Whether such measures contribute to decreases in the use of (home-produced) stimulants remains a question, but recent reports suggest that young users in Odessa, Ukraine have turned to potentially even more harmful patterns of stimulant preparation. Lacking (pseudo)ephedrine, they have shifted to using OTC medications containing phenylpropanolamine (PPA) in the preparation (oxidation) of boltushka (mix), which contains cathinone12 (Chintalova-Dallas et al., 2006). PPA has been associated with increased risk for risk of hemorrhagic stroke (Horwitz et al., 2000).

Furthermore, participation in home production itself poses an increased risk of long prison terms. UNODC reported that most of the seized methamphetamine labs in Europe are small kitchen labs (UNODC, 2007). In most CEE countries a charge of drug production does not differentiate between production for personal (friends) consumption and large scale production. It remains widespread in the region to strictly interpret the articles on drug production of the UN drug conventions and apply them to drug users engaging in self-preparation of drugs. This does not do justice to the social-ecological context of illicit drug consumption. It is unlikely that the international legislators who drafted the UN drug conventions had considered the rather particular situation in the CEE region, where the majority of IDUs cook injectable stimulants and opiates for their own use, without the intent to sell or make a profit. Furthermore, this strict interpretation does not serve public health goals, such as prevention of HIV, overdose and other morbidity associated with problem drug use. Incarceration puts drug users and their families at risk of HIV, HCV, TB and other health risks or trauma.

In the final section of this chapter, we discussed the history of drug treatment, which, in our opinion, cannot be dissociated from the social doctrine that dominated every aspect of life in this region during the larger part of the last century. Drug use and other deviancies (whether alcoholism, psychiatric problems, or political dissent) were considered a threat to the collective. The primary goal of the Communist response to these “social diseases” was to undo or isolate such threats. Treatment outcome or individual human rights were secondary to blaming the victim. As in all other areas of life, an inertia that is a residue of Communist attitudes lingers in those narcology institutions that continue to be dominated by old school clinicians. Young progressive doctors feel often frustrated with what in their eyes are antiquated and harsh approaches towards treatment of dependency.

12 PPA oxidizes to cathinone and reduces to amphetamine (benzedrine).
One can argue that legislation in Western capitalist democracies developed equally harsh drug laws, but in Eastern Europe this development was determined by a Soviet ideology that was applied to all forms of deviance and collaboratively implemented by closely connected agents of state control — *narcology* and law enforcement. In the West most drug treatment has, in the main, been developed separate from law enforcement. From the 1970s until quite recently many Western drug treatment providers saw their work as different from drug enforcement, and in many countries police and drug services still see each other as serving opposite goals. Only more recently cooperation between legal and treatment approaches towards addiction become more common (e.g. Drug Courts in the US; repressive multi-agency individual treatment plans for *chronic, nuisance addicts* in the Netherlands).

Furthermore, many European countries have developed a variety of non-repressive measures towards drug users. According to a 2002 publication of the European Monitoring Center for Drugs and Drug Addiction on the topic of drug users and the law, many EU countries have reconsidered their position on the simple possession of drugs for private consumption and drug laws in the European Union (EU) increasingly seek to strike a balance between punishment and treatment (EMCDDA, 2002). These trends may soon spread within the westernized countries of the former Soviet bloc.

Nevertheless, treatment developed for methamphetamine addiction is virtually absent in the CEE region, with perhaps the Czech Republic being the only exception. But this is not much different from the situation that exists in most western European countries or the US. Research to find effective treatment specific to stimulant addiction has only recently surfaced in the English language scientific literature. Studies of cognitive behavioral therapy combined with contingency management suggest that this combined treatment may be effective in 40% of methamphetamine patients (Lee & Rawson, 2008), which is substantially more than the “guesstimated” 5% achieved with mere detoxification and two weeks of “rehabilitation” (personal communication of the second author with narcologists in the fSU countries).

Although few, there are fortunately signs that more evidence-based approaches towards problematic methamphetamine use are being considered in some countries in the region and the Czech Republic may be on the frontier of change. Trials on contingency management and methylphenidate substitution for problem methamphetamine users are planned or in preparation, while individual doctors experiment with prescribing methylphenidate (Ritalin) to long-term, chronic methamphetamine users (see, e.g, Hampl 2004). The September 2008 First Global Conference on Methamphetamine in Prague, Czech Republic will hopefully stimulate similar developments in the region.

During the 1990s, the use of illegal drugs increased drastically throughout Central and Eastern Europe. The arrival of the market economy and open borders has affected patterns of drug use — e.g. in many places powder heroin has substituted homemade opiates. Quite surprisingly this has much less affected the shadow economy around the production and consumption of ATS, which remain mostly produced and consumed in
small groups of consumers. While methamphetamine has also popped up in the nightlife of various eastern European cities — where ecstasy has certainly lowered the threshold for stimulants — the tradition of kitchen produced amphetamines continues to dominate stimulant use throughout the region.

In Western Europe generally there is at present no evidence of widespread use of methamphetamine. While use of homemade ATS is substantial in Eastern Europe, in particular in countries now bordering the EU, the concern for the EU is the extent to which the problems in the CEE states will move westward. Concern about methamphetamine is slowly entering the consciousness of the EU and in member states. It is impossible to predict the future diffusion of methamphetamine use without concerted research. Griffiths et al. (2008) suggest that methamphetamine diffusion in Western Europe is impeded by a market dominated by other stimulant drugs such as cocaine and ecstasy. Dutch prevention officers feel that the relatively well educated recreational drug consumers in their country will eschew methamphetamine. The availability and popularity of other drugs, the perception of methamphetamine among drug users, and travel and migration to and from the enlarged union could all influence future spread of methamphetamine (Griffiths et al., 2008). The situation in the Czech Republic that exported it’s “know how” to Slovakia already, and the situation in many fSU states, the US, and Asia shows the potential appeal of methamphetamine. Obtaining pertinent data and mounting appropriate responses will depend to a considerable degree on input from in new member states and countries that border on the EU.
Figures
Figure 1. Ephedrine-based Stimulants

Ephedrine

Reduction

Methamphetamine

Oxidation

Methcathinone

Ephedrone
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