Monitoring and reporting on the drug use in Europe; The EMCDDA perspective on Khat

Paul Griffiths– October 2009, Linköping, Sweden
Confession

- **Khat addict ...**
  - Have tried very hard to escape its clutches but failed miserably
- Personaly have limited expertise in this area
- The EMCDDA's perspective on Khat is simple to present as...
This presentation…

• Brief introduction to EMCDDA
  • Mission
  • Scope of activities
  • Monitoring approaches and tools
  • Why Khat is a difficult topic for us

• Explore what we can say in the EU about Khat
  • What data are there on the availability use
  • Khat in wider perspective of EU stimulant market & emerging trends

• Conclusion
  • Why perhaps we should have a perspective on khat
Introduction to the EMCDDA
Who we are

- A decentralised EU agency
- Formally established in 1993
- Based in Lisbon, Portugal (operating since 1995)
- The hub of drug-related information in the EU
- About 100 staff; 22 nationalities; a budget of around 13.5 million Euros
What we do

• **Provide the Community and EU Member States with:**
  ‘factual, objective, reliable and comparable information at European level concerning drugs and drug addiction and their consequences’

• **New mission (2007) gives agency a broader role:**
  • collect, register, analyse information on ‘emerging trends in polydrug use’, including combined use of *licit and illicit* psychoactive substances
  • provide information on *best practice* in Member States and facilitate exchange of such practice between them
Collecting and analysing data

Methods:

• Reitox national focal points (NFPs), national experts

• Annual reporting to EMCDDA (national reports, standard tables, questionnaires)

• Expert groups for developing indicators (nominated by NFPs)

• Ad hoc working groups
Scope of monitoring activities

- Epidemiology (drug situation incl. 5 Key Indicators)
- Supply & market information
- New threats & developments (council decision)
- Responses – prevention, treatment, harm reduction & social reintegration
- Best practices
- Supply reduction activities
- Legislation (national and Community strategies and laws)
- Policy developments (political and institutional framework, coordination)
Khat information?

- Epidemiology (drug situation incl. 5 Key Indicators)
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- Supply reduction activities
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Why Khat a difficult topic for us?

Historically has fallen into a grey area for us...

• Legal status (controlled V non controlled)

• Overall - low prevalence & cultural-ethnic specificity – not a policy priority at EU level

• Rarely appears in standard quantitative data sets we use
EU level monitoring of drug use among ethnic minorities & migrant populations

- Politically sensitive
  - Legal status – *invisible population* – politically may not exist
  - Concern about encouraging stigmatisation & racism
  - Links between some ethnic minorities & trafficking and supply complicates things further

- Methodologically challenging
  - Legal barriers and no consensus on definitions
  - A lack of robust information sources
  - Lack of specialist services in most countries

- EU added value? ... best done at national level?
What do we know about Khat availability & use in Europe?
Khat production

Khat is an **economically important plant** in the countries that cultivate it; for Medical and social use goes back to antiquity: Yemen, Ethiopia, Somalia, Kenya

International trade, & migration khat use has spread to countries far away from areas of cultivation.

Every week tonnes of Kenyan khat reaches the UK by air for local use and distribution to other countries.

Available from websites and smart shops as ‘**room odoriser**’.
Khat use in Europe

• No evidence of Khat use in general population (most surveys do not include this category) but...

• Use reported among East Africa migrants (Somali, Ethiopian, Kenyan and Yemeni)

• Some anecdotal evidence to suggest that limited diffusion may be occurring to other groups? (among UK students, Poly drug use)

• Seizures reported by some countries

• But not a commonly or regularly used stimulant in EU outside of specific populations
Global drug seizures, excluding cannabis, 2004-2005

Source: UNODC, WDR 2007
Legal situation

- **UN Conventions**
  - Khat itself is not controlled
  - But its psychoactive compounds, cathine and cathinone are classed as Schedule III and Schedule I respectively under the UN Conventions (and controlled in all EU MS).
  - National legislation determines if the plant is controlled
    - Parallel with magic mushrooms & legal grey area

- **Plant controlled as narcotic drugs in at least 14 EU member states**
  - Belgium, Denmark, Germany, France, Ireland, Italy, Lithuania, Slovenia, Finland, Sweden, Norway, Latvia, Greece, Poland
Khat seizures in the EU

- **Main point of entry UK & NL**
- **Only 12 countries report seizures**
  - in 2006 an estimated 1,200 seizures totalling 41 tonnes of Khat were reported
- **Number seizures low**
  - Typically less than 100
  - Sweden & Norway a bit higher
- **Quantities**
  - Fairly stable situation – most countries reporting less 2,500KG
  - Over the period 2000–2006, quantities seized increased
  - Germany, Norway, Sweden important
Estimates of Khat seizures (kg)
- > 5000
- 1000 - 5000
- < 1000
- No data available

Countries where khat is uncontrolled
Main points of entry into the EU

Current Trends

Expanding Khat cultivation across the African continent
Distribution of Khat from a UK perspective

Source: ACMD report, 2005
Number of seizures of Khat by country and year in some EU countries and Norway, 2000-2008.
Quatities siezed (kg.) of Khat by country and year in some EU countries and Norway, 2000-2008.
Khat as a new drug?
Khat & related compounds in the EWS

Information exchange/Early-warning

1. A new psychoactive substance is detected in the EU Member States and described in a reporting form
   - Reitox focal points
   - Europol national units
   - Europol

   EMCDDA

   The European Commission

   European Medicines Agency (EMEA)

Risk assessment

2. The Council of the EU may request a risk assessment, based on a EMCDDA–Europol Joint report
   - EMCDDA
   - EMCDDA extended Scientific Committee
   - Risk assessment report

Decision-making

3. At the initiative of the European Commission or a Member State based on the Risk assessment report
   - Council of the EU decides whether or not to submit the new psychoactive substance to control measures
   - Council Decision on control measures
   - Control measures and criminal penalties in the EU Member States

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EWS & new trends

• Globalisation, information technology & other technological advances important drivers
  • Mahajan & Miller (1994) – *creation of unified markets is associated with the faster diffusion of new ideas products & technologies*

• Market actively seeking out new products –
  • Sophisticated marketing
  • Innovation driven by cheap organic synthesis,
  • Difficulties of drug control in global market
  • Growing importance of the INTERNET
Spice: a recent example

- Herbal mixtures sold on the Internet & specialised shops around 2005?
- An ‘exotic incense blend’, ‘not for human consumption’
- Reported by some users to have effects similar to cannabis
- Extensive forensic investigations by some Member States identified synthetic cannabinoids added to the herbal mixture (JWH-018, CP 47,497, HU-210) (2008)
- Mainly an Internet phenomenon
- Control measures: AT, DE, FR, LU, PL, EE, SE… (2008-9)
- New cannabinoids continue to appear following control measures
What is the potential of Khat as…

• A newly promoted psychoactive substance within the herbal highs market?

• A chemical group…within the context of developments in synthetic drug market in Europe?
Patterns of use, mode of action and effects

• **Patterns of use**
  • Fresh leaves, twigs & shoots are **chewed** (like coca leaf / tobacco chewing) and the juice of the masticated leaves is **swallowed**
  • Typically, **100-300 g** of khat (1 bundle) are used over a period of **3-4 h**
  • Dried khat is also ingested as an infusion
  • Occasionally smoked

• **Mode of action**
  • Facilitates dopamine release
  • Inhibits dopamine and norepinephrine re-uptake
  • Affects the serotonin system

• **Psychostimulant effects**
  • Central nervous system stimulant
  • Mildly euphoric and stimulant
  • Insomnia, wakefulness
  • Increased heart rate
  • Decreased appetite
Khat

Fresh khat leaves  Dried khat leaves

Khat bundles

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Bundles of khat

Fresh khat leaves

Dried khat leaves

Cathinone

- Decomposition 48 hr
- Unstable, potent
- Effects peak after 15-30 min
- 98% metabolised by the liver

Cathine

- Milder
- Schedule III drug, 1971 UN Convention
- Half-life in humans ~ 3 hr

Schedule I drug, 1971 UN Convention

98% metabolised

Decomposition
Cathinones

**cathinone** (beta keto derivative of amphetamine)  
[Chemical structure of cathinone]

**amphetamine** (phenethylamine)  
[Chemical structure of amphetamine]

- Cathinones are pharmacologically active (stimulant) alkaloids extracted from the leaves of *Khat* plant (*Catha edulis*)

- When khat leaves are chewed, cathinone is metabolised by the liver into **cathine**, which is also present in khat

- These compounds are structurally and pharmacologically similar to amphetamine
Cathinones: Structural analogues of phenetylamines

Cathinones

Phenetylamines

structurally-related analogues with similar pharmacological profile
Cathinones sold as ‘legal highs’

- 13 cathinones are being monitored by the EWS
- 6 of the 13 NPAS reported to the EWS in 2008 were cathinones
- 2 cathinones have been reported to the EWS in 2009 so far
Methylnone

- First reported in NL at the end of 2004,

- Marketed under name Explosion

- Marketed as a vanilla-scented ‘room odorizer’, with the following warnings: ‘do not ingest’, ‘keep away from children’, ‘never use more than one bottle.’
Can Khat compete with other drugs on the EU stimulant market?
Perspective in EU stimulant market

- Strong stimulant market in Europe
- Cocaine, amphetamines, and drugs used in Europe but not as widely as cannabis synthetic
- Increase of cocaine use over the last years whereas amphetamines use steady (or even decreasing)
- Cocaine use prevails in west and south Europe whereas amphetamines use predominant in northern, central and eastern Member States
- Hypothesis of replacement of substances
- Could Khat play a future role?
Stimulant markets in the EU

Background: Dominance according to GPS & Seizures:
- Cocaine and amphetamines represented similarly in seizures / GPS
- Cocaine prevails in seizures / GPS
- Amphetamine prevails in seizures / GPS

Pie charts: All treatment requests:
- % Cocaine
- % Amphetamine

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Issues – barriers to Khat diffusion

• Transportation
  • Large volume
  • Short product life

• Pharmacological action
  • need a lot
  • Slow onset

• Route administration
  • Unfamiliar
  • Stimulant drugs often used instrumentally (specific activities & settings)
Methamphetamine production facilities (2008)
Concluding remarks…
An EU perspective…

**Trends**
- Stimulant market IN EU robust but…
- Khat probably will not compete with main stimulants & trend is towards synthetic substances
- But some diffusion possible – need for monitoring & research
- The chemical group is becoming increasingly important in the growing new synthetic drugs market

**Responses**
- Whole area of drug use among migrant and ethnic communities becoming increasingly important at EU level
- Do not know much about problems associated with Khat use
- Generally care model for stimulant users is poorly developed in EU (but now changing)
- Control policies the trend is to become increasingly convergent & Khat is problematic from an EU perspective
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