Drug testing at music events - A low threshold drug prevention program for young consumers of synthetic drugs

Rainer Schmid  Ph.D. & MSc.(Tox)
Dept. of Laboratory Medicine, Medical University Vienna
and
The 'checkit' Project, City of Vienna, Austria

www.checkyourdrugs.at
...these were the 90's...
The Early Warning System (EWS)

‘Over 280 new psychoactive substances have been monitored in Europe by the EWS until today….’

Number of new psychoactive substances notified to the EU

SYNTHETIC CANNABINOIDS

CATHINONES

PIPERAZINES

TRYPTAMINES

PHENETHYLAMINES

OTHERS (chemicals, plants, medicines)
Markets & Distribution....

... 692 internet shops have been identified in 2012, which sell psychoactive substances [EMCDDA 2013].

... 80% of the market goes through the internet (EROPOL)
Facts on the 'New Synthetic Drugs' ....

.... most substances are non-controlled 'Research Chemicals' which can be legally purchased (in large quantities)!

**Little to nothing** is objectively known on

- Human Psycho-Pharmacological Effects
- Side-Effects
- Acute Toxicity
- Longterm-Toxicity
- Purity (and biological activity of side-products)
- Interactions with other compounds!

... a pharmacological and toxicological nightmare !!
New Synthetic Drugs: What can – should - be done??

- **Efficient Harm Reduction**
- **Fast Risk Assessment**
- **Minimizing Market Drives**
What is needed in a **Prevention Approach** for more efficient ‚**Harm Reduction**‘ ??
Encouraging and strengthening risk awareness....

„...But do users of NSD get the necessary and credible information they need,....

.... to reduce personal harm and strengthen their risk awareness efficiently?„
Is it actually possible for consumers of NSD to assess their risks (even if they try)??

- **Identity of a substance** most of the times is not available – only phantasy names –
  ..... it is only allows to consume 'blind'!

- **The composition** (in drug mixtures) is unknown -
  ..... it cannot be dosed with minimal risks!

- **Concentrations of active ingredients in drug samples** are not known and

- Substances are deliberately sold under different drug names
  ..... they will be consumed under uncorrect risk assumptions!
The checkit! Project

- An institution for *recreational drug consumers*
- *Low-threshold* project, addressing drug prevention
- with *scientific aspects*

Founded by the Drug Coordination of the City of Vienna 1997

A cooperation between Suchthilfe Wien and the Medical University of Vienna (General Hospital of Vienna - AKH Wien)

Grants by:
Goals

- Approaching difficult to reach groups through attractive ‘offers’.
- **Risk reduction** through offering credible information on psychoactive substances and their consumption risks, thus avoiding problematic consumption patterns and by such prevention of short- or long-time health damage.
- **Promoting risk-conscious behavior** and a drug-critical position.
- **No overreaction, no deterrence**
- Gain scientifically based information on synthetic substances consumed and on their consumption patterns,
- **Warn** on substances with high health risks.

www.checkyourdrugs.at
Fields of Work

The ChEckiT! Project

- ChEckiT! Event Support
- ChEckiT! On-site Drug-Testing
- ChEckiT! Counselling

www.CheckYourDrugs.at
Methods and Tools

- Anonymously & voluntary
- A client-accepting attitude
- Providing 'objective information' (through chemical analysis)
- *Psychosocial counselling* – Motivating communication (Miller & Rollnick)
- Orientation onto *individual life situation*
- Pragmatism
Why 'drug-checking'?

- To efficiently reach targeted groups
- To increase credibility and acceptance
- Information for actual prevention
- Efficient measure for risk reduction
- Warning of specially dangerous substances in the sense of the European Early Warning System of the EMCDDA
- Gives overview on the actual drug market situation
Recreational drug users generally are interested to obtain more and reliable risk- and substance-based information, ....but not unconditionally!

They (generally) approach counselors to test their competence....

.... having the impression, they will obtain trustful information...

.... they are willing to accept prevention information ...
Event support:

Three distinct operational zones

- **Information & counselling zone**
  (up to 8 psycho-socially trained counsellers)

- **Zone of accepting the drug samples (‘The Tent’)**
  (2 counsellors)

- **Zone of the analytical laboratory**
  (up to 3 trained chemists)
Event assistance

Mobile Lab

Counselling area

Sampling tent

The ‘checkit’ zones

Drug analysis results
Inside the sampling tent....
'Check it!' Sampling Device
The mobile drug testing lab: using 4 HPLC systems and a LCMS system running in parallel for fast results.
Presenting the analytical results....

- All (anonymized) analytical results are *openly displayed in the counselling zone* (by number)

- but the *identity of sample* is neutralized (no logo, only by a number)

- *Risks* of analytical results are 'interpreted' (intentionally)
Interpreting drug testing results at events...

<table>
<thead>
<tr>
<th>ChEckiT! test result</th>
<th>12 sample ID</th>
<th>XTC</th>
<th>Amount: 50mg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expected substance(s)</td>
<td>MDMA</td>
<td></td>
<td>Amount: 50mg</td>
</tr>
<tr>
<td>Other substance(s)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Remark

This sample contains the expected substance(s).

Interpreting drug testing results...

<table>
<thead>
<tr>
<th>ChEckiT! Test result</th>
<th>19 sample ID</th>
<th>XTC</th>
<th>Amount: 130mg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expected substance(s)</td>
<td>MDMA</td>
<td></td>
<td>Amount: 130mg</td>
</tr>
<tr>
<td>Other substance(s)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Remark

Caution !!!
High dosage

Interpreting drug testing results...

<table>
<thead>
<tr>
<th>ChEckiT! Unexpected test result</th>
<th>56 sample ID</th>
<th>Speed</th>
<th>Amount: little</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expected substance(s)</td>
<td>amphetamine</td>
<td></td>
<td>Amount: little</td>
</tr>
<tr>
<td>Other substance(s)</td>
<td>caffeine</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Remark

Caution !!!
This sample contains unexpected substance(s).

Interpreting drug testing results...

<table>
<thead>
<tr>
<th>ChEckiT! Warning</th>
<th>44 sample ID</th>
<th>XTC</th>
<th>Amount:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expected substance(s)</td>
<td>PMA</td>
<td></td>
<td>Amount:</td>
</tr>
<tr>
<td>Other substance(s)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Remark

Caution !!!
This sample contains particularly harmful substances!

Interpreting drug testing results...
Presenting the analysis results....
How targeted groups are reached

At events:

- up to 600 information / counselling contacts on-site /night
- up to 100 samples analyzed / night

www.checkyourdrugs.at ~ 150.000 hits / year
On-line-requests ~ 450 / year
Telephone requests ~ 500 / year
## Results of 'On-site' Drug Testing in Vienna (End 2011): How to assess risks correctly, without a test result??

<table>
<thead>
<tr>
<th>Sample</th>
<th>bought as</th>
<th>analyzed</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Cocain</td>
<td>Koffein</td>
</tr>
<tr>
<td>2</td>
<td>SPEED</td>
<td>Koffein</td>
</tr>
<tr>
<td>3</td>
<td>MDMA</td>
<td>MDMA</td>
</tr>
<tr>
<td>4</td>
<td>MDMA krist</td>
<td>Koffein</td>
</tr>
<tr>
<td>5</td>
<td>Heroin</td>
<td>MDMA</td>
</tr>
<tr>
<td>6</td>
<td>??</td>
<td>MDMA</td>
</tr>
<tr>
<td>7</td>
<td>SPEED</td>
<td>Koffein</td>
</tr>
<tr>
<td>8</td>
<td>MDA</td>
<td>F-Phenyl-</td>
</tr>
<tr>
<td>9</td>
<td>Xtc</td>
<td>MDMA</td>
</tr>
<tr>
<td>10</td>
<td>Kokain</td>
<td>Kokain</td>
</tr>
<tr>
<td>11</td>
<td>Xtc</td>
<td>Methylon</td>
</tr>
<tr>
<td>12</td>
<td>SPEED</td>
<td>Koffein</td>
</tr>
<tr>
<td>13</td>
<td>Xtc</td>
<td>Koffein</td>
</tr>
<tr>
<td>14</td>
<td>SPEED</td>
<td>Koffein</td>
</tr>
<tr>
<td>15</td>
<td>MDMA</td>
<td>Koffein</td>
</tr>
<tr>
<td>16</td>
<td>MDMA krist</td>
<td>Koffein</td>
</tr>
<tr>
<td>17</td>
<td>Kokain</td>
<td>Kokain</td>
</tr>
<tr>
<td>18</td>
<td>Kokain</td>
<td>Kokain</td>
</tr>
<tr>
<td>19</td>
<td>Xtc</td>
<td>Koffein</td>
</tr>
<tr>
<td>20</td>
<td>SPEED</td>
<td>Koffein</td>
</tr>
<tr>
<td>21</td>
<td>MDMA krist</td>
<td>Methylon</td>
</tr>
<tr>
<td>22</td>
<td>Kokain</td>
<td>Kokain</td>
</tr>
<tr>
<td>23</td>
<td>Kokain</td>
<td>Beg</td>
</tr>
<tr>
<td>24</td>
<td>MMC</td>
<td>4-MMc</td>
</tr>
</tbody>
</table>
Overall, the final goal is....

.... to help young individuals to build up their own strong risk awareness and to make the right choices during periods in their adolescent life...

.....so they leave their (sometimes turbulent) time of youth with the least damage, for a safer start into their further life!