European Syringe Collection & Analysis Project Enterprise

a multi-city study of monitoring consumption trends of people who inject drugs

Lisbon, 23 October 2019
Why?

• In France
  • + 105,000 people who inject drugs (PWID)
  • 75,000 low threshold structures’ clients
    • only those who answer to survey
    • declarative bias

• Finally, little is known about substances injected by drug users

In 2010, SAFE, a French harm reduction association, tried to find a way of getting information about the users of the AIKD who were not seen or for whom we were not able to talk with.
How?

- SAFE manages the biggest French needle exchange program:
  - 35 automatic injection kit dispensers (AIKD) in Paris,
  - more than 50 in all suburbs,
  - more than 110,000 syringes exchanged (83,000 in Paris)
- Actually, SAFE was possessing everything they need to investigate
- Partnership with an analytical chemistry laboratory (Paris Sud University)
- In other countries, studies using this methodology were conducted
  - Austria (non published)
  - Hungary (Péterfi et al., 2014)
  - Switzerland (Lefrançois et al., 2016)
European syringe collection & analysis project enterprise (ESCAPE)

- In December 2016, EMCDDA decided to support a multi-city study using the syringe analysis methodology
- Coordinated by the French monitoring centre for drugs and drug addictions

- General objectives
  - Improve national and European knowledge about the drugs injected by PWID in a sentinel network of cities
  - Make comparisons between cities and between different sites within the same city
  - Have a European overview on NPS injection
  - Assess the extent of syringes reuse
The methodology
Sampling methodology

As far as possible

Collect in 5 different sites per city

- To be representative
- To have a good geographical coverage

How many syringes?

First campaign: 300 syringes per city

- 150 during weekdays
- 150 during the weekend

Second campaign: 150 syringes per city

A minimum of 30 syringes per site

Good compromise between representativeness and cost of analyses

One month to manage syringe collection
Collection sites

- 7 European cities
- 24 different sites
- 17 needle and syringe exchange programme centres
- 6 street bins
- 1 drug consumption room
Sampling preparation & analytical method

1. Recovering drug residues from used syringe
2. Sample filtration

- Used syringe
- Clean syringe
- Methanol
- Methanol + residues
Main results
In total

- 2 sampling campaigns
  - September 2017
  - March 2018

- 2,364 collected syringes
- 2,243 analysed syringes (95%)
- 2,098 in which substance(s) was/were detected

- 67 active substances identified
  + cutting agents
  + metabolites
Percentage of detection by substance groups

- Cocaine: 31%
- Heroin: 24%
- Amphetamines: 21%
- Cathinones: 17%
- Other medicines: 17%
- Morphine: 7%
- Naloxone: 4%
- MDMA: 3%
- Piperidines: 3%
- Other amphetamines: 2%
- Other opioids: 2%
- Methadone: 1%
- Ketamine: 1%
- Synthetic cannabinoids: 0%
- Fentanyl: 0%
Results of the first collection campaign

[Map showing drug usage across Europe with percentage values and city names like Amsterdam, Brussels, and London. Specific drugs highlighted include Heroin, Cocaine, Amphetamines, and others with percentage usage indicated.]
Helsinki results
Paris results
How many substances in one syringe?

- 0 substances: 13.0%
- 1 substance: 42.2%
- 2 substances: 36.1%
- 3 substances: 9.58%
- 4 substances: 1.62%
- 5 substances: 0.71%
- 6 substances: 0.29%
- 7 substances: 0.19%
- 8 substances: 0.10%
Three first most observed combinations of substances in syringes in each city (in percentage of total analysed syringes):
For the first time in Europe (in the world), a study based on the used syringe analysis methodology has been conducted twice simultaneously in 6 cities

• **Detection of high level of:**
  • Heroin in Amsterdam and Cologne
  • Cocaine in Glasgow, Cologne, Lausanne and Paris
  • Amphetamines and buprenorphine in Helsinki
  • Cathinones in Budapest and Paris

• **Geographical differences**
  • Between cities
  • Between sites within the city

• **Reliable and repeatable method**
A new indicator?

- A new tool/methodology to assess the drug consumptions of a specific population of drug users

- Another piece to the puzzle
  ➔ Better understanding of PWID practices
Limitations

- We see what we seek or what is detected
  - Try to harmonize analytical methods
- Different ways to get rid of syringes and different volume of syringes
  - Not exhaustive sampling methodology
- A person can throw away 20 syringes while 10 people can throw away 2 each
  - A stimulant user will take drug more often
- The syringes may have been disposed of several weeks after use
  - Molecule degradation
- Substances may have been consumed before
  - They can be in the syringes because they come from blood
• **Repeat the exercise every year**
  • At least once a year

• **Consolidate our network**

• **Extend to other European cities**
  • associations *(professionals working in the field)* and universities *(researchers)*

• **Try to evaluate and reduce biases**
  • e.g. collect + individual survey in a supervised injection room
Thanks to all partners
Thank you for your attention

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