

Health care trajectories and medication consumption of substance users in treatment :

Linking TDI and IMA databases (Belgium)

Karin De Ridder

Jerome Antoine

Overview

1. Background
2. Objectives
3. Material en methods
4. First results
5. Perspectives

1. Background

- Problem substance use has a relative low prevalence and is often socially stigmatised → Difficult to study health care trajectories and medication consumption
- Main data sources available :
 - TDI register = “incidence” register, no follow-up possible
 - Insurance database : difficult to identify patients with substance use problem
- Idea : Linkage of TDI database with the health care and prescription register of the Belgian national compulsory health insurance

2. Objectives

A) Accessibility of health care for people with drug problem

1. How many patients with drug problem (TDI) are not registered in IMA (no access to reimbursed health care?). Profile?
2. Description of indicators for drug-related health care (demography; SES; drug-related indicators; measures for better health care access; geography) and of the use of health care (IMA data)
3. Health care use before and after TDI registration?
4. Comparison of health care use with “controls” (over/underconsumption?)

2. Objectives

B) Use of medication by people with drug problem

1. Description of medication groups relevant for this project
2. Description of indicators (demography; SES; drug-related indicators; measures for better health care access; geography) and of medication use (IMA data)
3. Medication use before and after TDI registration?
4. Comparison of medication use with “controls” (over/underconsumption?)

2. Objectives

C) Coverage and validity of TDI register

1. “completeness” of TDI register? Proportion new treatments vs all reimbursed treatments (IMA)?
2. Validity of certain variables (demography; living situation; ever treatment/ever OST treatment)
3. Capture-recapture analyses for OST therapy (TDI, no GP – IMA, incl. pharmacies)

3. Material and methods

TDI register :

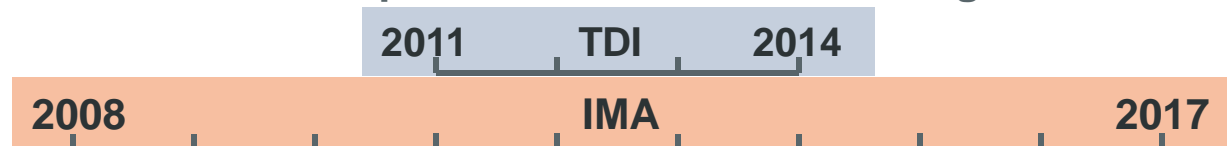
- Extraction of records from specialized centres, centres of mental health and general or psychiatric hospitals from 2011 until 2014
- Only patients registered with their national identification number
- Only the first time the patient is seen in the period 2011-2014
- Data on the client's socio-demographic profile, substance use pattern and treatment information

3. Material and methods

IMA databases :

- From 7 Belgian Health Insurance Organizations in 3 databases :
 - 1) population database with socio-demographic data,
 - 2) health care database with information on reimbursed health care provision
 - 3) Farmanet database with data on reimbursed prescriptions
- Extraction of selected data for all TDI patients related to socio-demography, health care and prescriptions from 2008 until 2017

Time periods of data used in linkage:



3. Material and methods

Case-control matching (1:4) :

- Aim: comparison of medical consumption of persons in drug treatment with persons who did not enter into drug treatment
- Each TDI case will be matched by sex, age and municipality with 4 control persons from the IMA population database
- This control group has no administrative registrations of treatment for substance addiction :
 - Not in TDI
 - No OST medication
 - No alcohol dependence medication
 - No reimbursement for substance abuse treatment

3. Material and methods

Linkage :

- Both registers will be linked by a coded version of the patient's unique national identification number
- A Trusted Third Party (eHealth) is to decode, link and recode the NIN in order to link both registers

Privacy commission :

- Approved by the Privacy Commission

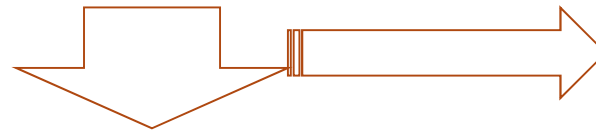
Progression :

- The linkage is done since May 2016
- Data will be yearly updated with IMA data, up to and including the administrative registration year 2017

4. First results

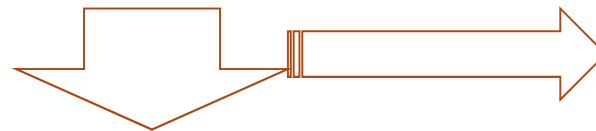
Linkage steps :

65,280 records in TDI
for the period 2011-2014



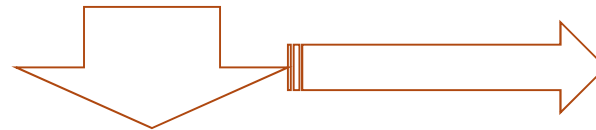
16,401 not registered
with NIN

48,879 registered
with NIN



17,686 not first record
in the database

31,193 first record in database,
eligible for linkage



606 not found in the
IMA databases

+122,348
control group



30,587 (98%)
effectively coupled

4. First results

Characteristics of TDI population : (n=31,193)

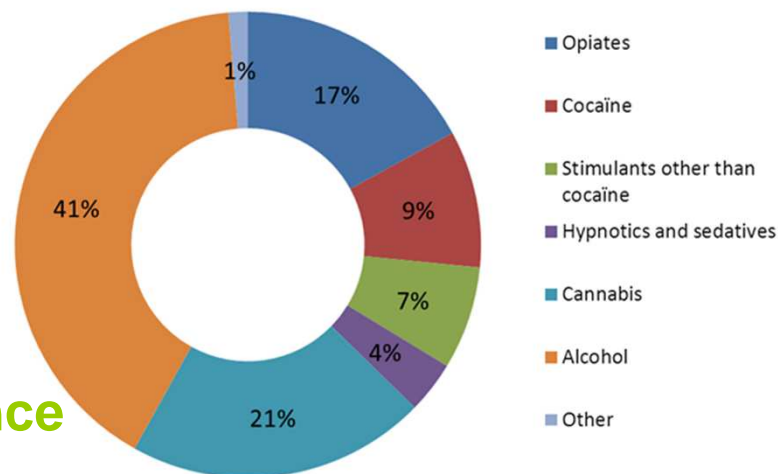


25% 75%

Mean age :
37 years old



94% Belgian

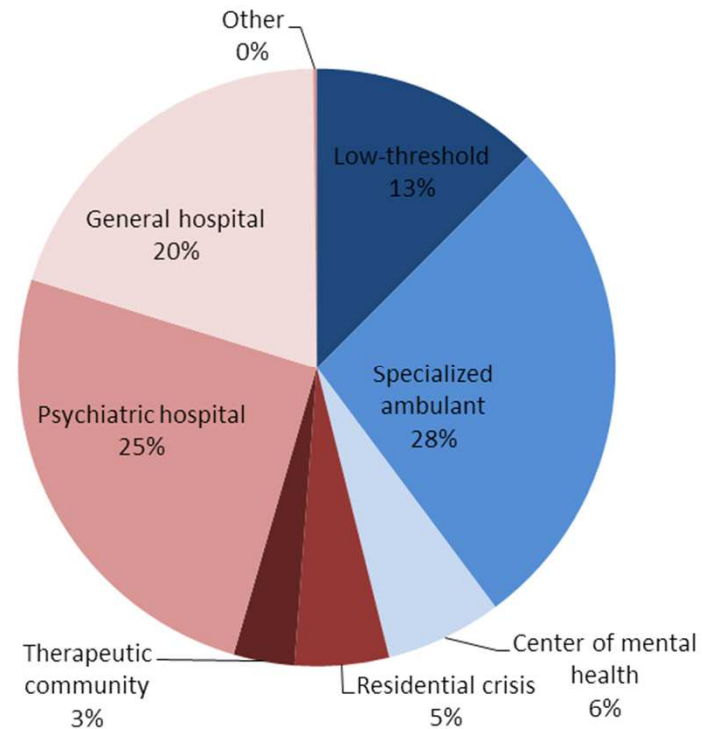


Primary substance

4. First results

Characteristics of TDI population :

Type of treatment centre



5. Perspectives

- A linkage of TDI and IMA databases will result in the first large-scaled longitudinal database in the Belgian drug epidemiology
- What about the excluded groups of people? See what we lack
- On TDI point of view : interest for quality checks, coverage
- Start analysis in the next months



Thanks for your attention !

Contact : jerome.antoine@wiv-isp.be
<https://tdi.wiv-isp.be>