



Leveraging healthcare data in The BRIDGE project

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Using healthcare data from Region Stockholm for research 2024-11-07

Clinicum and Center for Health Data

Agenda

- Overview of the BRIDGE project

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- Data collected

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- Data collected
- Experiences and recommendations

The post-detoxification treatment gap

- Specialized detoxification services are crucial for safe withdrawal from alcohol and other drugs
- High rates of relapse (e.g. 14-day: 50%) and readmission (e.g. 25%)
- Only 15% percents in U.S. detoxification programs pursue any extended SUD treatment



The BRIDGE project

Patient flow mapping

Purpose

Quantify post-detoxification treatment gap

Study type

Description and risk stratification

Scope of data

National or region-wide, high-resolution data



Study period



2018

2020

The BRIDGE project

	Patient flow mapping	Digital aftercare guide
Purpose	Quantify post-detoxification treatment gap	Increase post-detoxification treatment
Study type	Description and risk stratification	Intervention evaluation (Quasi-experimental time series)
Scope of data	National or region-wide, high-resolution data	Clinic-level EHR data
Study period	 20182020	 20222024

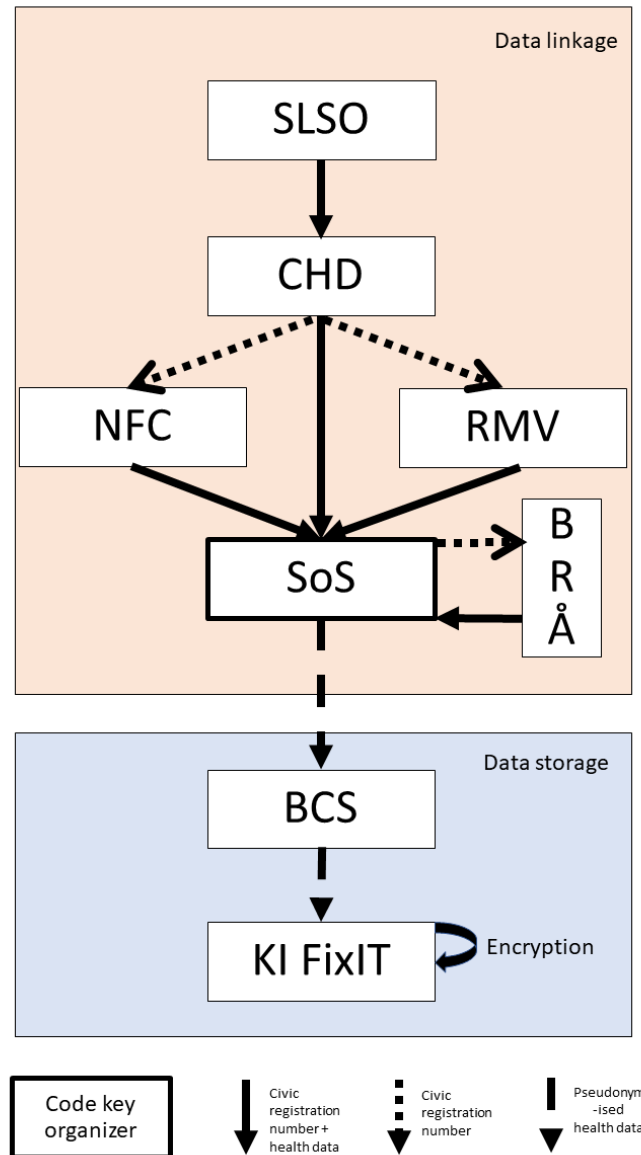
Systematic patient flow mapping of transition from SUD-ED to outpatient clinics

- n = 9,771 individuals visiting the Stockholm SUD Emergency Department (Beroendeakuten)

Systematic patient flow mapping of transition from SUD-ED to outpatient clinics

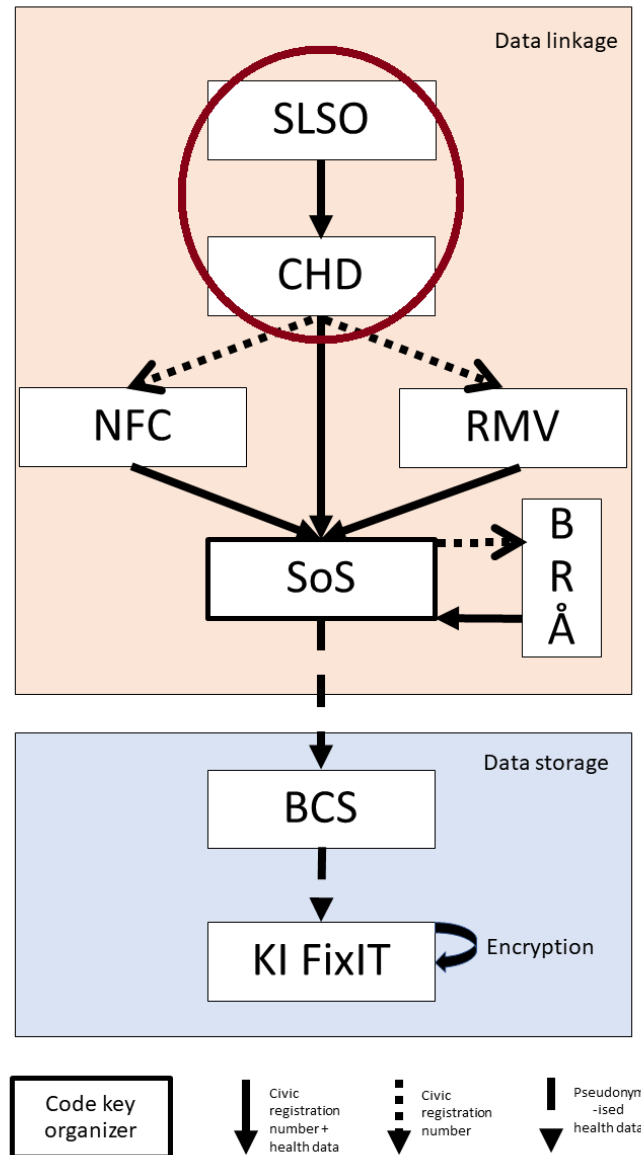
- n = 9,771 individuals visiting the Stockholm SUD Emergency Department (Beroendeakuten)
- Variable domains include:
 - Process (e.g. waiting time to doctor)
 - Clinical (e.g. previous healthcare consumption, comorbidity)
 - Demographics (e.g. age, gender)
 - Substance-related criminality (e.g. offenses of Driving under the influence)

Data source



Abbreviations: BCS = Stockholm Centre for Dependency Disorders; BRÅ = National Council for Crime Prevention; CHD = Centre for Health Data, Stockholm Regional Council; KI = Karolinska Institutet; NFC = National Forensic Centre; SoS = National Board of Health and Welfare; SLSO = Stockholm Health Care Services; RMV = National Board of Forensic Medicine.

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Data specification

TakeCare (SLSO)

Filter Conditions

All visitors at BAS

Database

Patient medical records, Cash register

Time Window

16M period, 2018 to 2019

Variable Set

Timestamp, Diagnosis and Procedure Code

Register-Specific Extract

Admission method (e.g. public intoxication), Breath alcohol conc.

Data specification

TakeCare (SLSO)

VAL (CHD)

Filter Conditions

All visitors at BAS

Healthcare events with any psychiatric, substance-induced or somatic substance-related diagnosis

Database

Patient medical records, Cash register

VAL Outpatient and inpatient databases

Time Window

16M period, 2018 to 2019

10 years backward and 6M forward

Variable Set

Timestamp, Diagnosis and Procedure Code

Register-Specific Extract

Admission method (e.g. public intoxication), Breath alcohol conc.

Visit Status (e.g., "5. No-show")

Data format

- So called long format
- One row = one care event

Pseudo ID	Index date	Visit date	Diagnosis
Tolvan Tolvansson	2019-01-07	2019-06-13	F100,F200,F 300
Tolvan Tolvansson	2019-01-07	2019-01-29	F101
Tolvan Tolvansson	2019-01-07	2019-01-07	F100, F200
John Doe	2019-03-04	2019-03-12	F150
John Doe	2019-03-04	2019-03-04	F190

Data format

- So called long format
- One row = one care event
- Advantages:
 - Greater flexibility
 - Minimizing information loss

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Development of the data specification

- The VAL handbook

REGION STOCKHOLM

VAL databaserna

Datalager för uppföljning av vårdhändelser i
Region Stockholm

Ändrad. 2023-08-24

Denna handbok beskriver Region Stockholms uppföljningsdatabaser i datalagret VAL. Vårdgivare som har slutit avtal med Region Stockholm har åtagit sig att leverera information elektroniskt till Region Stockholm. Beroende på verksamhet rapporterar vårdgivaren vårdhändelser till olika system. I datalagret finns samlad information från ett antal olika verksamheter/grundsystem som t ex GVR, ARV,ListOn och FUMS.

Development of the data specification

- The VAL handbook
- Visiting Beroendeakuten

Development of the data specification

- The VAL handbook
- Visiting Beroendeakuten
- Quality assurance project



Discrepancy between medical records and administrative billing system

No-show rates to scheduled follow-up appointments doubled when using medical records as the data source compared to administrative billing data

Take-home message

- Leveraging data handbooks' guidance (e.g. VAL)

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- Visiting the clinic(s) in question for contextual understanding

Take-home message

- Leveraging data handbooks' guidance (e.g. VAL)
- Visiting the clinic(s) in question for contextual understanding
- Seeking collaborative opportunities with clinic-led quality assurance projects for data quality controls

Thanks for your attention!

Questions? Comments? danilo.romero@ki.se

Slides available at:  @DaniloCarlosRomero

Principal Investigator: Associate Professor Philip Lindner



VAL handbook



Check out the
BRIDGE

