

Describing client presentations at four syringe dispensing machines in South-East Melbourne, Australia.

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Background

- **Needle and Syringe programs** (NSPs) play an important role in **curtailing the spread** of blood born diseases such as **Hepatitis C**
- The use of discrete, **24/7 syringe dispensing machines** (SDMs) is one form of NSP that has the potential to **reach subpopulations of PWID** who are less likely to engage with in-person services, such as women and young people
- **Point-of-access SDM data collection** provides insights into utilisation and characteristics of PWID accessing SDMs
- This informs service evaluation and adaption to ensure responsive health care provision

Aim

Using data collected from four SDMs in South-East Melbourne, Australia between May 2017-December 2020, we aimed to:

1. **Describe the demographic results** from the SDM data
2. **Evaluate the feasibility** of collecting demographic and timestamped data via this data capture system

Discussion

- Our point-of-access data tool provides a novel means of comparing SDM presentations with on-site presentations to a primary fixed-site NSP with **results demonstrating the substantial expansion of fixed-site NSP service via the SDMs**
- The point-of-access data input tool integrated with the SDMs are an innovation, however, our analysis has highlighted limitations with their use, with over 50% of demographic data determined as being invalid
- Improving user experience and **mitigating invalid data collection** on the keypads is needed to **ensure the feasibility** of this type of data capture system
- SDMs represent an effective means of reaching people who inject drugs beyond fixed-site NSPs, especially those who do not wish to access the fixed-site service
- More research is required to evaluate and determine how primary fixed-site NSP services can be tailored to meet the needs of other subpopulations of people who inject drugs, which may include the provision of targeted information in multiple formats that appeal to broader age ranges and identities

Methods

- Prior to ordering injecting equipment, **clients enter basic demographic data** (i.e., age category, gender, and postcode) into a numbered keypad attached to the SDM
- We estimated **unique SDM presentations** by applying a 45-second cut off between SDM orders, presuming that a **unique person** could make a single (or multiple) SDM orders with 45-seconds of each other
- Preliminary data cleaning indicated approximately **55% of all SDM demographic data was inputted invalidly**. We restricted data in order to identify what we determined to be the most valid demographic data
- **Descriptive analysis** reports SDM utilisation and client demographics, and compared against the fixed-site NSP managing the SDMs

Results

- We estimated there were **90,488 unique SDM presentations**. The distribution of unique presentations across the four SDMs was relatively consistent with total SDM orders (n=180,989)
- Following data restriction, we report on demographic data from 10,913 unique presentation (12% of all estimated unique presentations).
- 54.2% reported male gender, 39.9% reported female gender, and 5.9% reported a non-binary ('Other') gender
- The majority of presentations **reported an age >30 years (62.1%)**, however, 13.3% of presentations reported age ≤20 years. This was particularly noted among presentations reporting a non-binary gender, among whom 60.5% (n=388) reported age ≤20 years
- Over the analysis period, the fixed-site NSP reported age and gender data for 33,412 unique presentations. From these, 79% reported male gender and 21% reported female gender
- Presentations **reporting an age >30 years accounted for 88%** of fixed-site presentations, while presentations **reporting an age ≤20 years accounted for only 5%**

Conclusions

- Point-of-access SDM data provides **important guidance for harm reduction service delivery**. Collecting demographic and time presentation data **shows the need for varied NSP services** for service responsivity and to meet the needs of different clientele
- However, there **are important considerations related to the validity of collected demographic data**, relevant to services looking to implement similar data collection systems
- Even so, our data does suggest greater proportions of women, non-binary genders and younger people utilise the SDMs compared to fixed-site NSP clients. More research is required to understand the harm reduction and blood-borne virus testing/treatment needs of these clients.

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