**Assessing the impact of substance use treatment for preventing criminal justice system contact in Chile**

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**Background.** Extensive research has shown that reducing substance abuse through effective treatment leads to a reduction in criminal activity. However, most of this evidence comes from developed countries, and results from the Latin American context are largely unknown. The structural, economic, epidemiological context and substance use treatment (SUT) policy response are different in this region, making the question about SUT effectiveness through locally based data relevant. We analyse Chile as a case study and examine the impact of SUT on the prevention of contact with the criminal justice system in the short (3 and 6 months), middle (1 year), and long term (3 years).

**Methods**. This research relies on a population-based record-linkage retrospective cohort design. We used a deterministic linkage process (using encryption of the Chilean Unique National ID) to merge electronic records of individuals in publicly funded Chilean SUT programs with the Prosecutor’s Office data at the national level between 2010 and 2019.  Survival analysis is used to determine the extent to which treatment and numerous covariates were associated with time until committing an offense that led to a contact with the criminal justice system (outcome 1) or to imprisonment (Outcome 2).

**Preliminary Results**. Of the 85,048 SENDA patients, 70,863 (83%) were eligible to be matched with the Prossecutor’s Office database. Of the sample, 22,287 (31%) had at least an offense that ended with a condemnatory sentence after baseline treatment. Those that had at least an offense that ended with imprisonment after baseline treatment were 5,144 (7%).

Early drop-out had a rate of 131 (95% CI[confidence intervals] 128, 134) offenses with condemnatory sentences after baseline treatment per 1,000 person-years, while patients that completed treatment had 60 (95% CI 58, 62) and those with a late discharge had 104 (95% CI 102, 106).

Early drop-out had a rate of 9 (95% CI 8, 9) offenses with imprisonment sentence after baseline treatment per 1,000 person-years, while patients that completed treatment had 10 (95% CI 10, 10) and those with a late discharge had 26 (95% CI 25, 27).

* Compared to those receiving no treatment (early drop-out), those completing SUT took longer to contact the criminal justice system (IRR [incidence rate ratio]= 2.18, 95% CI 2.09, 2.27) and to commit an offence leading to imprisonment (IRR= 2.90, 95% CI 2.64, 3.18).
* Compared to receiving some treatment (late drop-out), those completing SUT took longer (IRR= 1.73 95% CI 1.67, 1.80) to contact the criminal justice system and to commit an offence leading to imprisonment (IRR= 1.93 95% CI 1.77, 2.10).
* However, the difference was lower when we compared those who received some treatment with those who no SUT for some period (late drop-out) regarding the time to contact the criminal justice system (IRR= 1.26 95% CI 1.22, 1.30) and imprisonment (IRR= 1.50 95% CI 1.41, 1.61).

Further research is needed to account for staggered entry to follow-up and confounders of the association.

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