**Impact of poly-substance use on treatment completion between 2010-2019 in Chile.**

* **Project description**

This project aims to estimate the effects of reporting polysubstance use (PSU) at admission on completing SUD treatment among adult patients admitted to SUD treatment programs in Chile during 2010-2019. It is important to highlight that this study will not contribute directly to my PhD thesis, but it is part of a collaboration with other colleagues in Chile working in the same field as me, complementing my line of research with a health approach, amplifying my criminology focus. In this project we will use part of the data that I use for my thesis (the current study will use only data from health and not on criminal justice contact). This work may enrich my line of research. In particular, this research has the potential to enhance our understanding of factors that hinder patients achieving therapeutic goals in their treatments, such as PSU, letting us explore other mechanisms behind treatment outcome, which in my primary study was related to increased risk of contact with the justice system and incarceration.

* **Objectives**

The specific aims of this study are:

(1) To describe the prevalence of PSU and treatment completion in the sample,

(2) to compare the risk of completing treatment between people with poly and single-substance use.

* **Project design**

We used a registry-based retrospective cohort design of treatment records (N= 109,756) of patients (N= 85,048) in treatment programs at the national level from 2010 to November 13, 2019 (followed for a maximum of 150 months).

# ➢ Data source details and population

On the one hand, the SENDA database registers all patients admitted to adult treatment programs in centres affiliated with the SENDA network and with public health insurance from 2010 to 2019 at the national level (N = 85,722). The SENDA dataset also includes demographic, health, and treatment performance information.

# ➢ Data Access

We have already secured access to the data required to conduct this research. Proofs of the documentation and emails to secure access to the data are attached, including the original Spanish version and an English translation.

The database used in this study contains de-identified information. There is no way to identify individuals through the available database used by this research. Results, code and outputs will be presented in aggregated format.

➢ *Analysis plan* A descriptive and inferential analysis (inverse-intensity weighted generalised estimating equations to quantify the association between polysubstance use at admission and treatment outcome, while accounting for within-subject correlation) is expected for this study.

* **❖ Research team**

*Mariel Mateo Pinones:* Co-investigator. PhD student (School of Criminology and Criminal Justice, Griffith University, Australia). She coordinated the first Outcome Study of Substance Use Treatment in Chile. She led the Drug research area at the Justice and Society Studies Centre (Pontifical Catholic University of Chile) between 2015 and 2019.

*Andres Gonzalez Santa Cruz:* Principal investigator.PhD student (School of Public Health, Universidad de Chile). He has worked as technical staff in research related to occupational health and SUD treatments. He has been working on the Treatment patients’ dataset since 2019, collaborating with Dr Castillo-Carniglia on several papers.

*José Ruiz-Tagle:* Co-investigator.PhD student. (Public Policy, Universidad Mayor). He has worked on research projects related to substance use treatments. He also has been working on the dataset on Treatment patients since 2019 along with Dr. Castillo-Carniglia. He collaborated in the analysis of several papers linked to SUD.

*Álvaro Castillo-Carniglia.* Co-investigator.Ph.D., Associate professor, and Director of the Ph.D. Programme in Public Policy, Universidad Mayor. He has a background in epidemiology, and his main research areas are the measurement of SUDs in the population. He has co-directed several theses in public health related to treatment dropouts and readmissions.