

Substance Use in Older Adults in Chile: An Epidemiological Analysis of Primary Health Care Between 2017-2022

Consumo de Sustancias en el Adulto Mayor en Chile: un análisis epidemiológico de la Atención Primaria de Salud entre 2017-2022

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ABSTRACT

Introduction: The currents caused by the consumption of substances produce somatic, cognitive and behavioral symptoms that cause repeated use of the sustancia, weighing on its negative effects. In major adults, prevention and treatment are rarely addressed in public health strategies, and the failure of specific studies is difficult to implement effective medications. This study analyzes the contributions of the Mental Health Program at the Primary Health Center between 2017 and 2022 for consumption of sustancias in adults aged 60+ years. **Methodology:** An observational, descriptive and transversal study was carried out. Use the data obtained from MINSAL and INE. Las variables studies fueron años, sexo e ingresos al Programa. **Results:** Between 2017 and 2022, 12,153 entries were registered. The largest candidate was registered in 2017 (n= 2,527) and the lowest in 2020 (n= 1,269). Consumption or alcohol dependence represents 69.9% of the total, followed by consumption or drug dependence (19.9%). The police (10.2%) are the least frequent cause. **Discussion:** The decrease in resources in 2020 may have contributed to the reorganization of the Primary Health Center to respond to the COVID-19 pandemic. The region of Aysén registered more than Antofagasta, but this is the last time it has been since the population of Aysén. **Conclusion:** This study revealed a decreasing trend of ingredients between 2017 and 2020, registering a progressive increase from 2021. The major cantidades of ingredients are registered in the Metropolitan region, Biobio and Valparaíso, where it reflects a high level of assistance.

Keywords: *Alcohol Consumption, Drug Consumption, Older Adult, Chile, Mental Health.*

RESUMEN

Introducción: Los trastornos por consumo de sustancias producen síntomas somáticos, cognitivos y comportamentales que llevan a un uso repetido de la sustancia, pese a sus efectos negativos. En adultos mayores, la prevención y el tratamiento han sido poco abordados en las estrategias de salud pública, y la falta de estudios específicos dificulta la implementación de medidas efectivas. Este estudio analiza los ingresos al Programa de Salud Mental en la Atención Primaria de Salud entre 2017 y 2022 por consumo de sustancias en adultos de 60+ años. **Metodología:** Se realizó un estudio observacional, descriptivo y transversal. Se utilizaron datos obtenidos del MINSAL y el INE. Las variables estudiadas fueron años, sexo e ingresos al Programa. **Resultados:** Entre 2017 y 2022, se registraron 12.153 ingresos. La mayor cantidad se registró en 2017 (n= 2.527) y la más baja en 2020 (n= 1.269). El Consumo o Dependencia al Alcohol representó el 69,9% del total, seguida del Consumo o Dependencia a Drogas (19,9%). El Policonsumo (10,2%) fue la causa menos frecuente. **Discusión:** La disminución de ingresos en 2020 podría atribuirse a la reorganización de la Atención Primaria de Salud para dar respuesta a la pandemia de COVID-19. La región de Aysén registró más ingresos que Antofagasta, aun cuando esta última tiene casi seis veces la población de Aysén. **Conclusión:** Este estudio revela una decreciente tendencia de ingresos entre 2017 y 2020, registrando un aumento progresivo desde 2021. Las mayores cantidades de ingresos se registraron en la región Metropolitana, Biobío y Valparaíso, lo que refleja una alta carga asistencial.

Palabras claves: *Consumo Alcohol, Consumo Drogas, Adulto Mayor, Chile, Salud Mental.*

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INTRODUCTION

The rapid growth of the older adult population in Chile brings significant challenges for health and social assistance systems. Among these challenges, substance use among individuals aged 60 and older has emerged as a growing public health concern. Substance use disorders are characterized by somatic, cognitive, and behavioral symptoms that lead individuals to repeatedly self-administer a substance despite recognizing its negative organic, psychological, and social consequences.

Among older adults, alcohol is the most commonly used substance, followed by prescription medications, particularly opioids and benzodiazepines. Additionally, an increase in illicit drug use has been observed in this age group. Detecting substance use in older adults can be challenging due to medical comorbidities, cognitive decline, and functional impairment, as well as underestimation of the problem by both healthcare professionals and society. The interaction between substance use and the physiological changes associated with aging can exacerbate its adverse effects, increasing the risk of hospitalization, disability, and mortality.

In Chile, the most commonly consumed substances are alcohol and marijuana, followed by cocaine base paste, whose use is often intensive and associated with polydrug use and multiple disorders. Common individual factors associated with substance use include age, gender, the availability of personal spending money, and a lower perception of risk. Family and peer factors, such as isolation and lack of support networks, increase vulnerability to problematic substance use in old age. Contextual factors, such as substance availability and neighborhood characteristics, significantly influence consumption patterns.

Despite growing evidence on the importance of substance use in older adults, prevention and treatment for this population have received little attention within public health strategies. In Chile, preventive policies have traditionally focused on young people and working-age adults. The Ministry of Health (MINSAL) has implemented substance

use prevention and treatment programs through Primary Health Care (APS), including initiatives such as *Elige Vivir Sano Sin Drogas* and *Continuo Preventivo* from the National Service for the Prevention and Rehabilitation of Drug and Alcohol Use (SENDA). Additionally, Law 20.000 regulates drug trafficking and consumption, establishing penalties for illegal production and distribution. However, these strategies have not been specifically designed for the older adult population, highlighting the need for multidisciplinary approaches and specialized treatment personnel to effectively address this growing issue. Regular screening, preventive measures, and appropriate interventions are crucial to protecting older adults from negative consequences and improving their quality of life.

In this context, the 2017-2025 National Mental Health and Psychiatry Plan by MINSAL promotes a community-based approach that prioritizes social integration of users and strengthens mental health care within APS. One of its key pillars is improving health centers' responses to substance use-related issues through specialized mental health consultations. However, the lack of specific studies on older adults hinders the implementation of effective preventive and therapeutic strategies for this age group.

Therefore, it is necessary to study the admission patterns to the Ministry of Health's Mental Health Program (PSM). Given the broad spectrum of mental health disorders and considering the aforementioned background, this study focuses on substance use among adults aged 60 and older who seek specialized care in Primary Health Care. Thus, the present study aims to achieve the following objectives:

GENERAL OBJECTIVE

To analyze the admissions to the Mental Health Program in Primary Health Care at the national level between 2017 and 2022, focusing on substance use diagnoses in adults aged 60 and older.

SPECIFIC OBJECTIVES:

1. Determine the years with the highest number of recorded admissions to Primary Health Care due to substance use in the 60+ population between 2017 and 2022.
2. Identify the most frequent substance use diagnoses in the 60+ population in Primary Health Care between 2017 and 2022.
3. Conduct a quantitative comparison of substance use diagnoses at the regional level, analyzing the prevalence of each disorder in different regions between 2017 and 2022.

METHODOLOGY

This study is observational, descriptive, and cross-sectional. The target population was defined as individuals aged 60 or older who were admitted for the first time or readmitted to mental health control due to substance use in Primary Health Care, based on records obtained from the Department of Statistics and Health Information (DEIS) of the Ministry of Health (MINSAL). Data were collected over six full years across the 16 regions of the country from 2017 to 2022, with disaggregated information on admissions for three different substance use diagnoses.

To establish the theoretical-conceptual framework, searches were conducted in academic, scientific, and institutional databases: Google Scholar, Web of Science, Science Direct, MINSAL, and WHO. Boolean operators "AND" and "OR" were used to filter information in academic and scientific databases. The keywords used were: "Chile," "alcohol," "drugs," "harmful consumption," "dependence," "drug," "harmful consumption," and "dependence."

The data obtained were processed using Microsoft Excel 2025®, where the information was represented in tables and graphs for better interpretation. Ethical committee approval was not required for this study since it involved anonymized

and publicly accessible data. Additionally, the authors declare no conflicts of interest that could interfere with the study's results.

KEY DEFINITIONS

Polysubstance Use: Defined as "the use of two or more drugs within a simultaneous period of time."

Harmful Alcohol Consumption or Alcohol Dependence: Defined as "a pathological state in which withdrawal symptoms occur when alcohol consumption is discontinued."

Harmful Drug Consumption or Drug Dependence: Defined as "a pathological state in which withdrawal symptoms occur when any drug use is discontinued."

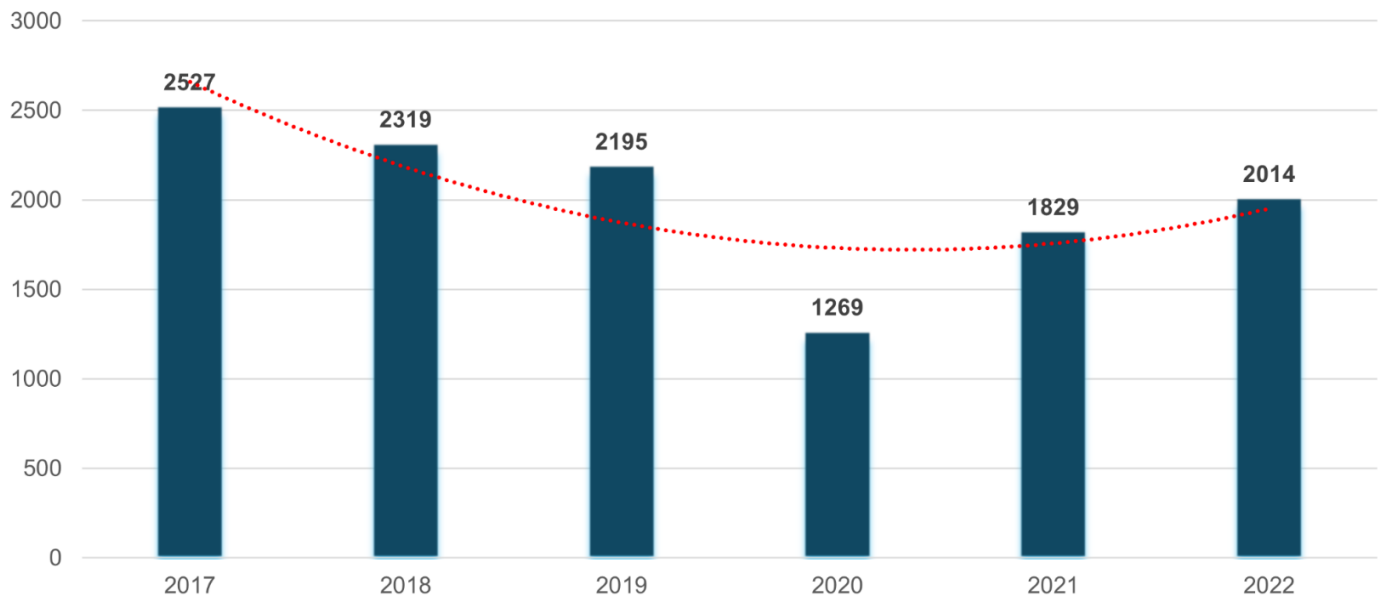
RESULTS

During the study period, a total of 12,153 admissions to the Mental Health Program (PSM) in Primary Health Care (APS) were recorded among adults aged 60 and older. These admissions were associated with three diagnostic conditions related to substance use: Polysubstance Use, Harmful Alcohol Consumption or Alcohol Dependence, and Harmful Drug Consumption or Drug Dependence.

It was observed that the number of admissions due to substance use in Chile showed a progressive decline between 2017 and 2020, reaching a minimum of 1,269 admissions in 2020 (Figure 1). This represents a 49.7% decrease (n=1,258) in APS admissions for substance use in just three years.

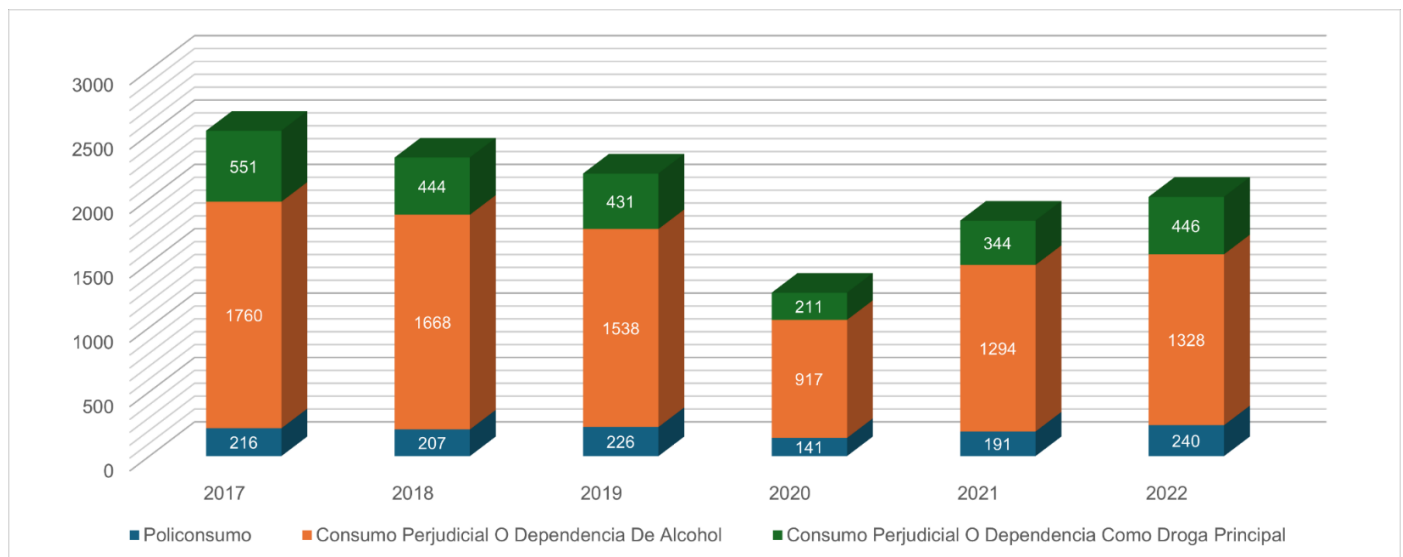
However, between 2021 and 2022, admissions increased by 36.9% (n=652) on average per year. The highest number of admissions was recorded in 2017, with 2,527 new diagnoses in the PSM due to substance use in Chile.

Figure 1. Number of admissions to the PSM (≥ 60 years) for Substance Use in APS between 2017 and 2022.



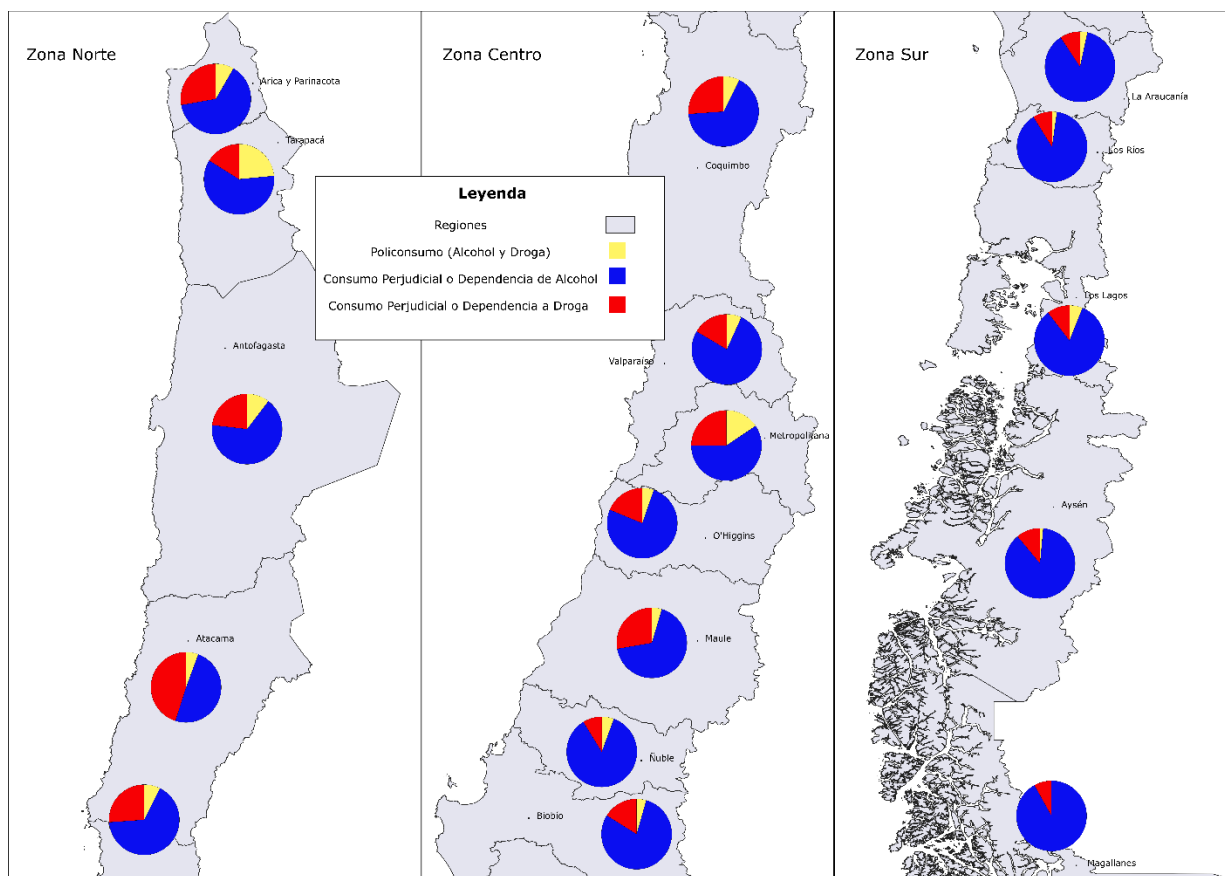
The blue bars represent admissions for substance use to the PSM. The red dotted line represents the data trend. Source: Own elaboration.

Figure 2. Number of admissions to the PSM for Substance Use (≥ 60 years) in APS between 2017 and 2022.



Source: Own elaboration.

Figure 3. Distribution of accumulated PSM admissions for substance use (≥ 60 years) in APS between 2017 and 2022 in Chile.



Source: Own elaboration.

Differences by Diagnosis

Between 2017 and 2022, the most common substance use disorder among adults aged 60 and older was Harmful Alcohol Consumption or Alcohol Dependence, with over 900 diagnoses and admissions per year in APS at the national level. This condition accounted for 69.9% ($n=8,505$) of admissions to the PSM during this period. The highest number of admissions was recorded in 2017 ($n=1,760$), while 2020 had the lowest number of admissions ($n=917$) for the same condition.

Next, Harmful Drug Consumption or Drug Dependence was the second most frequent cause of PSM admissions, representing 19.9% ($n=2,427$) of the total. The highest number of

admissions was in 2017 ($n=551$), while 2020 had the lowest number of admissions ($n=211$).

Polysubstance Use ranked third, accounting for 10.2% ($n=1,221$) of total admissions during the period. The highest number of admissions was recorded in 2022 ($n=240$), whereas 2020 had the lowest number of admissions ($n=141$) to the PSM.

Differences by Region

It was observed that Harmful Alcohol Consumption or Alcohol Dependence accounted for 50% or more of admissions in most regions of the country, except for one: Atacama. On the other hand, Harmful Drug Consumption or Drug Dependence had the highest incidence in Atacama, followed by Arica y Parinacota, and Coquimbo, in decreasing order.

Table 1. Number of accumulated PSM admissions for Substance Use (≥ 60 years) in APS between 2017 and 2022 in Chile.

| Región | Policonsumo | Consumo Perjudicial o Dependencia De Alcohol | Consumo Perjudicial o Dependencia Como Droga Principal | Ingresos Totales |
|--------------------|-------------|--|--|------------------|
| Arica y Parinacota | 9 | 69 | 30 | 108 |
| Tarapacá | 35 | 90 | 24 | 149 |
| Antofagasta | 17 | 109 | 38 | 164 |
| Atacama | 4 | 35 | 32 | 71 |
| Coquimbo | 18 | 163 | 64 | 245 |
| Valparaíso | 70 | 797 | 171 | 1038 |
| Metropolitana | 846 | 3229 | 1355 | 5430 |
| O'Higgins | 28 | 401 | 99 | 528 |
| Maule | 25 | 369 | 151 | 545 |
| Ñuble | 28 | 431 | 44 | 503 |
| Biobío | 63 | 1131 | 229 | 1423 |
| La Araucanía | 24 | 621 | 66 | 711 |
| Los Ríos | 5 | 201 | 20 | 226 |
| Los Lagos | 47 | 649 | 81 | 777 |
| Aysén | 2 | 119 | 15 | 136 |
| Magallanes | 0 | 91 | 8 | 99 |

Source: Own elaboration.

During the analyzed period, the highest numbers of PSM admissions for substance use were recorded in the following regions: Metropolitana ($n=5,430$; 44.5%), Biobío ($n=1,423$; 11.7%), and Valparaíso ($n=1,038$; 8.5%). The regions with the lowest number of admissions were: Atacama ($n=71$; 0.5%), Magallanes ($n=99$; 0.8%), and Arica y Parinacota ($n=108$; 0.9%).

DISCUSSION

The annual admissions to the PSM (Figure No.1) showed a significant decrease in 2020, which could be attributed to the reorganization of APS in response to the COVID-19 health emergency. This restructuring led to a reduction in the availability of services focused on the promotion, prevention, diagnosis, and treatment of substance use disorders and other mental health-related conditions.

In Chile, Harmful Alcohol Consumption or Alcohol Dependence is the leading cause of admission to the PSM for Substance Use in individuals aged 60 and older in APS. These results align with the SENDA 2015 bulletin on alcohol consumption in older adults, which reported that 32.5% of older adults consumed alcohol, and 52.0% exhibited risky consumption patterns. This behavior could exacerbate common medical disorders in the elderly, such as heart failure and hypertension.

Additionally, the highest numbers of admissions were reported in the most populated regions of the country, reflecting the high healthcare demand in APS in key areas such as the Metropolitana, Biobío, and Valparaíso regions. However, in terms of proportion of the population admitted to the PSM for substance use, the Aysén region stands out, particularly for Harmful Alcohol Consumption or Alcohol Dependence. Notably, Aysén recorded more admissions than Antofagasta, despite the latter having nearly six times Aysén's total population.

The main limitation of this study was the lack of disaggregated data by age and region. Although this information is available at the national level, accessing region-specific data was not possible, preventing a more detailed and specific analysis. Furthermore, most existing literature focuses on adolescent and working-age adult groups, often excluding older adults. This knowledge gap should be addressed in future research to broaden the scope of analysis and better represent the national reality as a whole.

CONCLUSION

This study reveals a declining trend in PSM admissions for substance use in older adults between 2017 and 2020, followed by a progressive increase from 2021 onward. The leading cause of admission was Harmful Alcohol Consumption or Alcohol Dependence, followed by Harmful Drug Consumption or Drug Dependence, whereas Polysubstance Use was the least frequent cause in all regions and throughout all analyzed years.

The southern regions of Chile recorded the highest prevalence of Harmful Alcohol Consumption or Alcohol Dependence, averaging 87.8% of admissions in each region: Araucanía, Los Ríos, Los Lagos, Aysén, and Magallanes. Meanwhile, the most populated regions concentrated the highest number of PSM admissions for substance use.

PSM admission data for substance use serve as a valuable tool for public health monitoring and

intervention planning fundamental for assessing demand in APS, both in terms of the availability of specialized human resources and the identification of mental health needs within the population. This information provides a detailed insight into the mental health status of older adults receiving care in APS, allowing for the identification of areas for improvement within the public health network.

Additionally, analyzing the demand for mental health services is crucial for understanding its impact, temporal evolution, and geographical distribution, enabling more efficient planning tailored to the needs of the target population

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