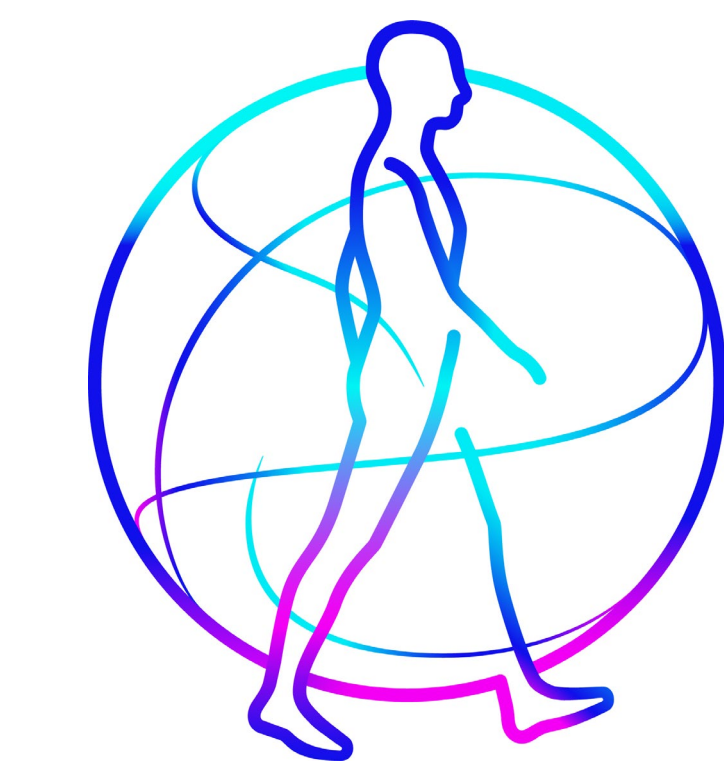


# Avoidable Hypertensive Admissions: Acute Complications and Hospital Utilization in Chile's Public Sector

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## BACKGROUND & OBJECTIVE:

**Hypertension** is a highly prevalent chronic condition and a major upstream risk factor for cardiovascular, cerebrovascular, renal, and metabolic diseases. While its population-level prevalence is well documented, less is known about its **contribution to tertiary-care utilization** and in-hospital outcomes within public healthcare systems in Latin America. Understanding the clinical and utilization profile of hospitalized patients with hypertension is critical to inform **prevention strategies, care integration, and resource allocation** in settings with constrained healthcare capacity.

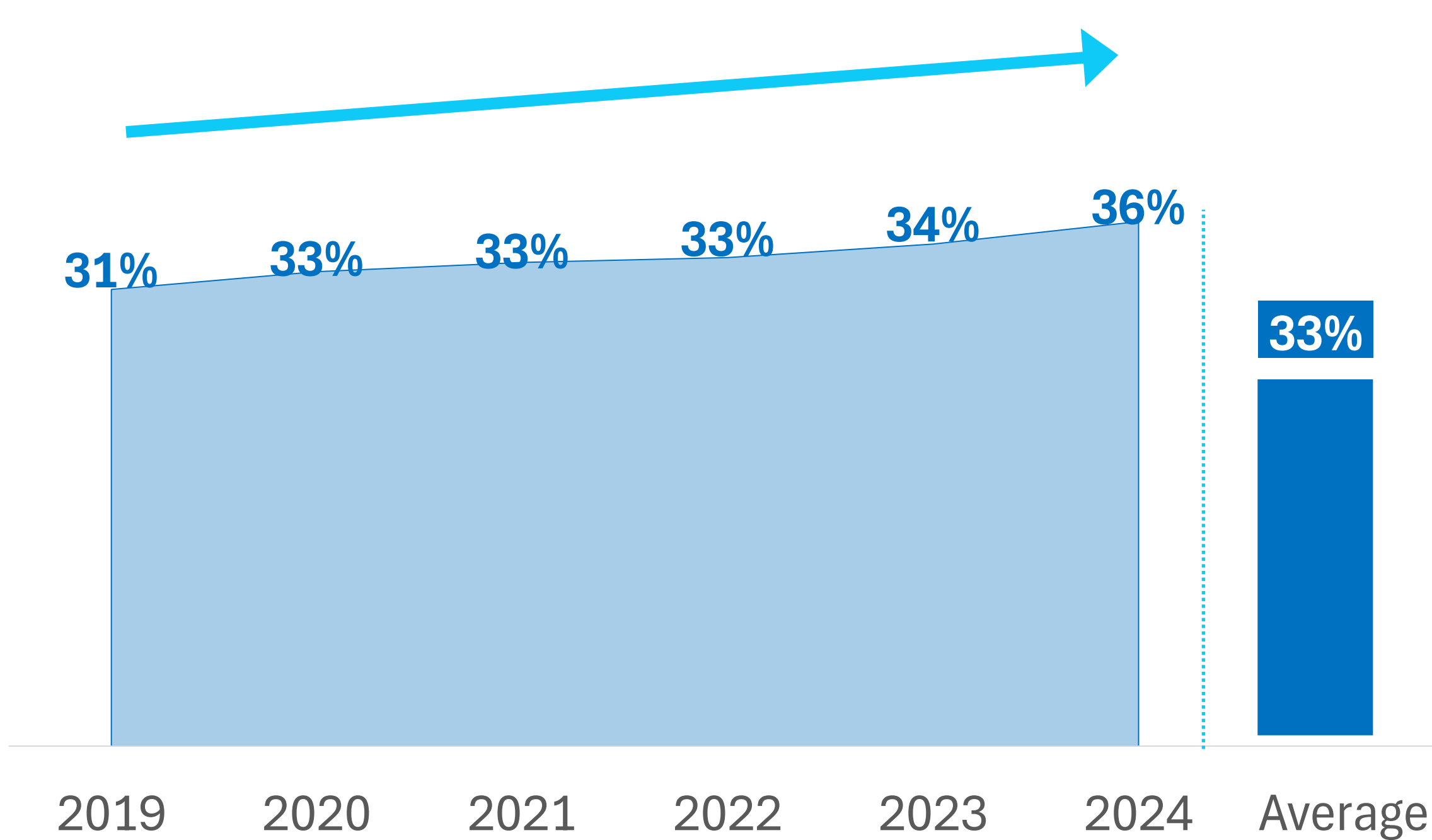
## METHODS:

This was a retrospective observational study using national **Diagnosis-Related Group (DRG)<sup>1</sup>** administrative data from the **Chilean public healthcare system (FONASA<sup>2</sup>)**, covering hospital discharges between **January 2019 and December 2024**. Adults **aged ≥18 years** with hypertension identified as a primary or secondary diagnosis using **ICD-10 codes (I10-I15)** were included. Patient demographics, primary discharge diagnoses, comorbidity burden, length of stay, readmissions, and in-hospital mortality were described using descriptive statistics.

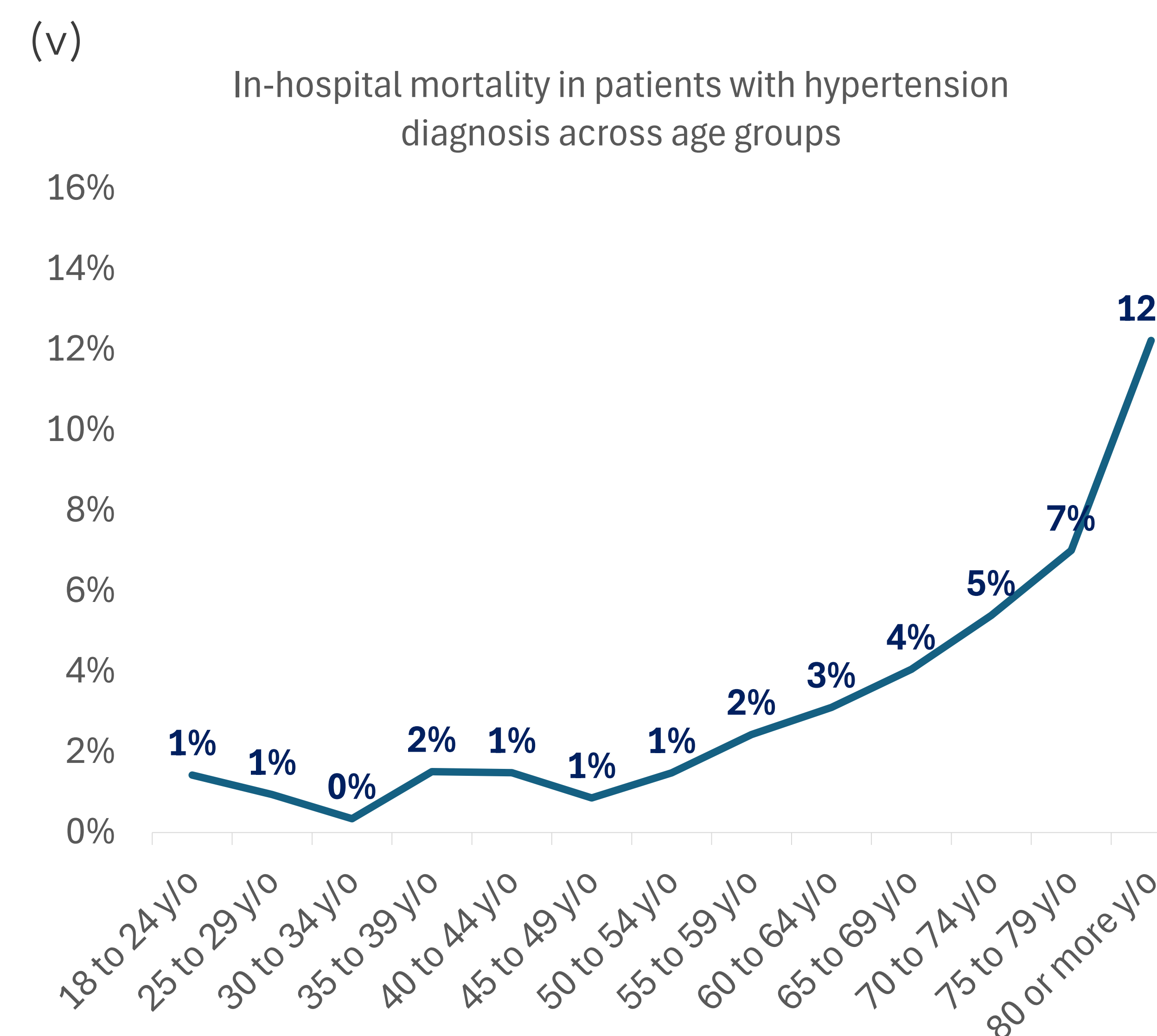
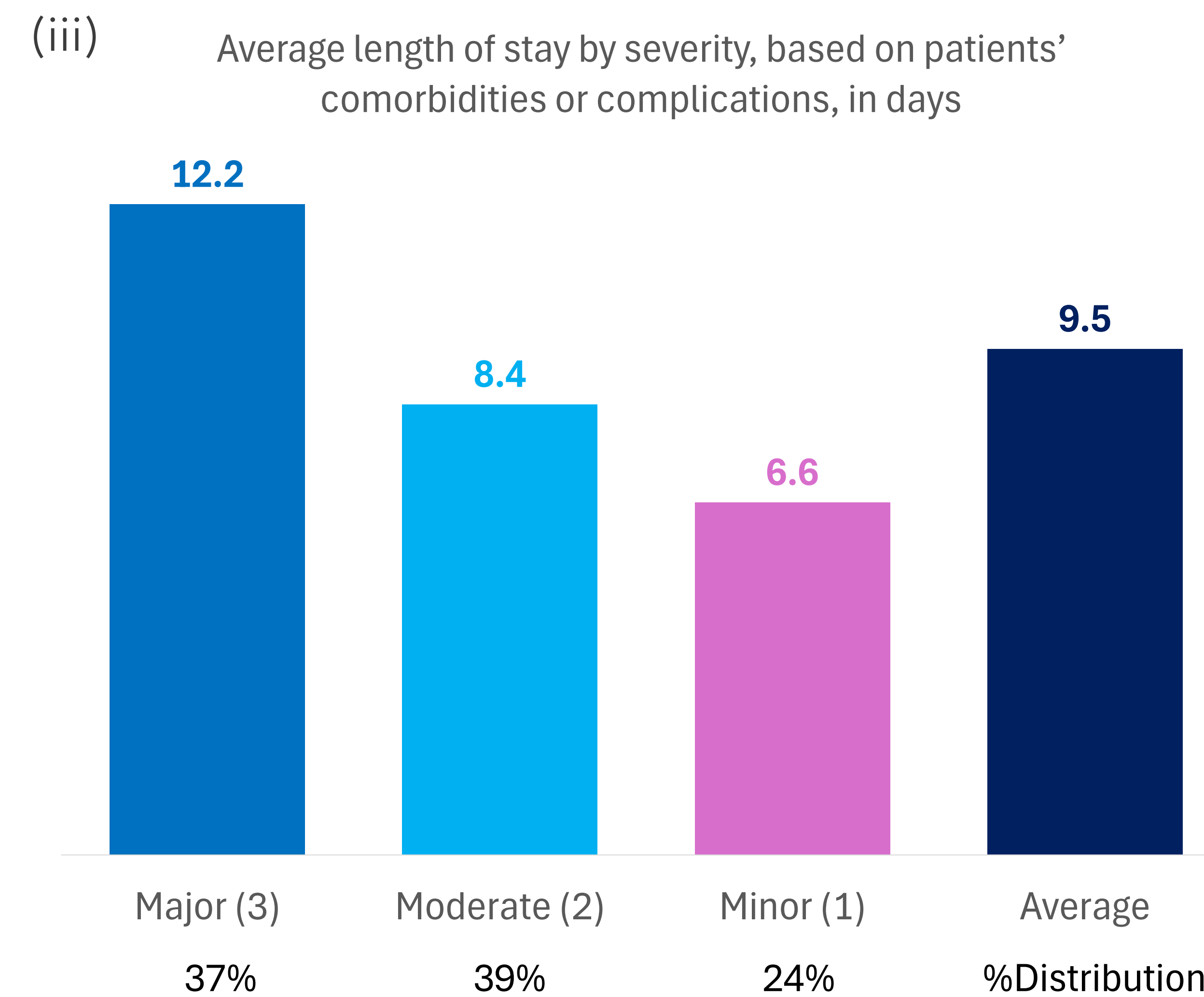
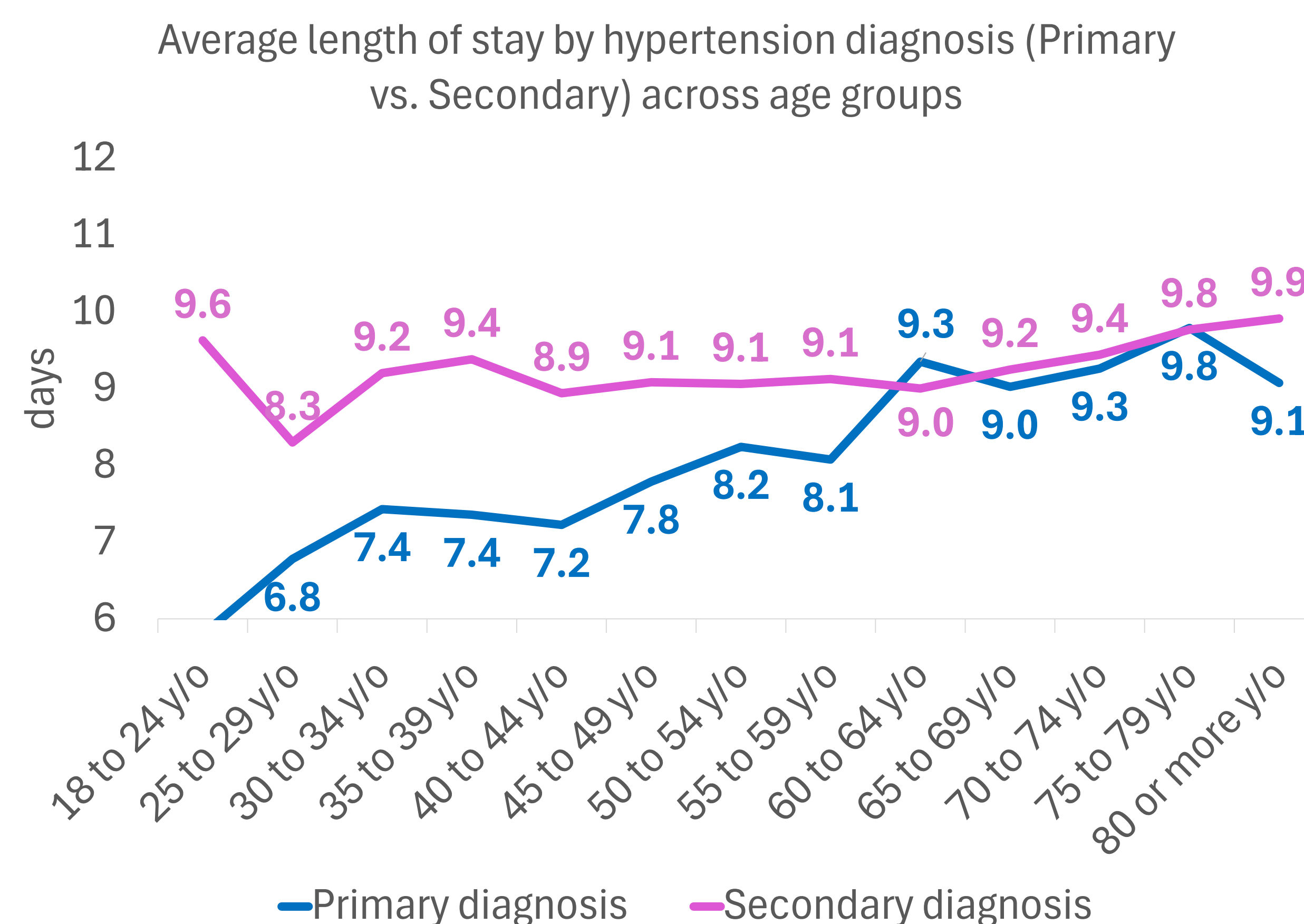
## RESULTS:

Among **3,359,824** hospitalizations in Chile (2019-2024), **33.0% (n=1,110,203)** had hypertension recorded as a primary or secondary diagnosis (i). A total of **95,774** hospital admissions for hypertensive patients **with acute complications** were analyzed between 2019 and 2024. The population was predominantly elderly, with a mean age of **73 years, and 63.0% aged ≥70 years; 49% were female**. In terms of disease severity, 39% of cases were classified as moderate and **37% as major severity**, the latter associated with longer hospital stays. The average length of stay (LOS) was **9.5 days** (ii), increasing to **12 days among major severity cases**, (iii) indicating substantial hospital resource utilization. Patients exhibited a high comorbidity burden, with an average of **9 comorbidities per individual**. The most frequent conditions in the subset population included: **163 Stroke (50%), 150 Heart Failure (34%), G45 Transient Ischemic Attacks (8%) and I11 Hypertensive Heart Disease (4%)** (iv). Regarding outcomes, the cohort presented a readmission rate of **1.1 per patient** over the study period and a mortality rate of **7.0%** (v, vi), highlighting the clinical severity and ongoing disease burden.

(i) Percentage of hospitalizations with reported hypertension (ii)



**Primary diagnosis (n = 8,062 patients)**  
**Secondary diagnosis (n = 89,265 patients)**



(iv) Associated comorbidities in patients by hypertension diagnosis

Diagnosis (ICD-10)	N	%
Stroke (I63)	47,721	50%
Heart Failure (I50)	32,182	34%
Transient Ischemic Attacks (G45)	7,656	8%
Hypertensive Heart Disease (I11)	3,596	4%
Occlusion and Stenosis of Cerebral Arteries (I66)	1,733	2%
Hypertensive Cardiorenal Disease (I13)	1,548	2%
Acute Cerebrovascular Accident (I64)	1,423	1%
Occlusion and Stenosis of Precerebral Arteries (I65)	401	0.4%
<b>Top diagnosis</b>	<b>92,738</b>	<b>96.8%</b>
<b>All diagnosis</b>	<b>95,774</b>	<b>100%</b>

(vi) In-hospital mortality by comorbidities in patients with hypertension diagnosis

Diagnosis (ICD-10)	N	%
Stroke (I63)	3,218	3.4%
Heart Failure (I50)	2,723	2.8%
Hypertensive Cardiorenal Disease (I13)	262	0.3%
Hypertensive Heart Disease (I11)	205	0.2%
<b>Top diagnosis</b>	<b>6,408</b>	<b>6.7%</b>
<b>All diagnosis</b>	<b>6,722</b>	<b>7.0%</b>

## DISCUSSION & CONCLUSIONS:

Hospitalized hypertensive patients represent a high-risk, elderly population with significant multimorbidity, driving prolonged LOS and high resource use. The observed readmission and mortality rates suggest gaps in disease control and continuity of care, with many admissions likely preventable. These findings highlight the need to strengthen early management, risk stratification, and outpatient care pathways to reduce progression to severe complications.

Hypertension-related hospitalizations impose a substantial burden on the public healthcare system, driven by an elderly, high-comorbidity population. Improving early control and care pathways is essential to reduce avoidable admissions and hospital strain.

Sources:  
 1/Catalogo de datos Fonasa - [https://public.tableau.com/views/Beneficiarios\\_16704273822880/Reporte?:showVizHome=no](https://public.tableau.com/views/Beneficiarios_16704273822880/Reporte?:showVizHome=no). Accessed on 04/28/2026.  
 2 / Datos Abiertos Fonasa (Beneficiarios) - <https://datosabiertos.fonasa.cl/dimensiones-beneficiarios/>. Accessed on 04/28/2026.