

XLIII Reunión Anual
de la Sociedad Española de
Epidemiología (SEE)

XX Congresso
da Associação Portuguesa
de **Epidemiologia (APE)**

www.reunionanualsee.org

Ética,
estilos de vida
e ações em Saúde Pública

Ética,
hábitos de vida
y acción en Salud Pública

2 al 5 Septiembre 2025
Las Palmas de Gran Canaria



Direct costs with dementia hospitalization and its determinants in Portugal in 2018

Francisco Madeira¹
Marta Moniz¹
Andreia Leite^{1,2}(presenter)
Joana Alves¹



¹ NOVA National School of Public Health, Public Health Research Centre, Comprehensive Health Research Center, CHRC, REAL, CCAL, NOVA University Lisbon, Lisbon, Portugal

² Department of Epidemiology, National Institute of Health Doctor Ricardo Jorge, Lisbon, Portugal

This work was supported by the Foundation for Science and Technology (FCT) under SINDIA study (2022.04684.PTDC). The funders did not have a role in study design, data collection and analysis, or the decision to publish and prepare the manuscript. No further conflicts of interest to disclose.

BACKGROUND



Major neurocognitive disorders, as is the case of **dementia**

↳ characterised by a decline in cognitive abilities, leading to adverse health outcomes and deterioration in quality of life

↳ The projected rise in diagnoses for the coming decades represent a **public health concern, impacting patients and society**, and placing a considerable **financial burden on healthcare systems**



For more insights, check the presentation
“**Spatiotemporal trends in dementia hospitalisations and mortality between 2010-2019: the Portuguese case**”

AIM: to estimate hospitalisation costs with dementia in Portugal in 2018, and its determinants

METHODS

Data Source

2018

Portuguese Hospital Morbidity Database (Base de Dados de Morbilidade Hospitalar, ACSS)- Portuguese publicly financed hospitals database

↳ filtered for dementia-related diagnosis, either primary or non-primary, based on ICD-10

Analysis

↳ Average costs computed for inpatient cases, using tariffs from national legislation, stratifying by dementia type.

↳ **Multivariate regression analysis (gamma, log link)** for assessing costs' determinants (sex, age, region, number of comorbidities, type of dementia, medical or surgical inpatient, and destination after discharge) with **results expressed as average marginal effects (AME) to report differences in expected costs in euros.**

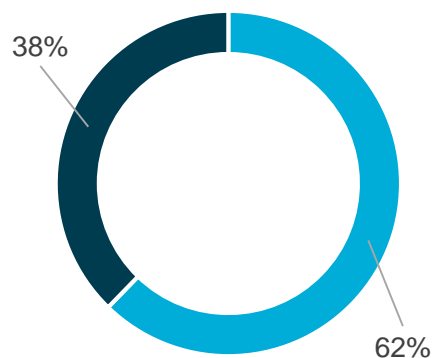
RESULTS

DESCRIPTIVE ANALISYS



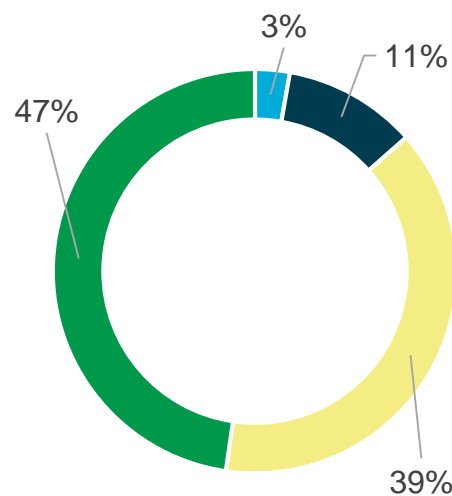
n= 22,672
(hospitalization records)

SEX



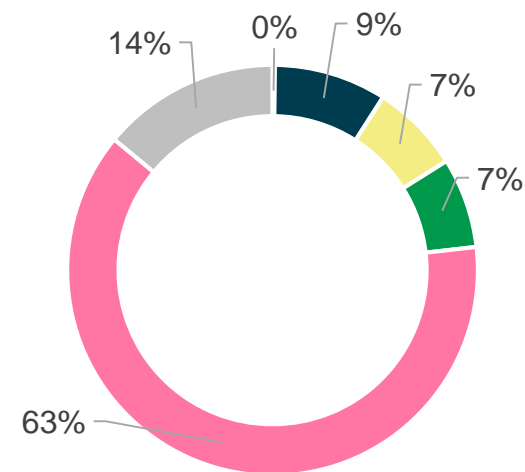
■ Female ■ Male

AGE GROUPS



■ 55-64 ■ 65-74 ■ 75-84 ■ ≥85

DEMENTIA DIANOSIS



■ Alcohol-induced dementia
■ Alzheimer's disease
■ Dementia in other diseases
■ Other degenerative diseases
■ Unspecified dementia
■ Vascular dementia

RESULTS

AVERAGE COST PER HOSPITALISATION

↳ **3057.49€ (overall)**

by type of dementia:

↳ Alcohol-induced dementia	2,348.97 €
↳ Alzheimer's disease	3,169.91 €
↳ Dementia in other diseases	3,061.35 €
↳ Other degenerative diseases	2,847.63 €
↳ Unspecified dementia	3,089.43 €
↳ Vascular dementia	2,956.97 €

TOTAL DIRECT ECONOMIC BURDEN FOR THE PORTUGUESE NHS

69,3 million €



RESULTS



TYPE OF DEMENTIA	AGE	COMORBIDITY AND SEVERITY LEVEL	DESTINATION AFTER DISCHARGE	MEDICAL OR SURGICAL INPATIENT
Alzheimer's ↓ 254.73 € (p< 0.001) compared to unspecified dementia (Note: Other dementia diagnosis showed no significant cost differences)	55-64 ↑ 1,086.20 € (p< 0.001) 65-74 ↑ 700.76 € (p< 0.001) 75-84 ↑ 210.91 € (p< 0.001) compared to 85+	each additional comorbidity ↑ 23.32€ (p< 0.001) each additional severity level ↑ 1,440.20€ (p< 0.001)	patients discharged home ↓ 326.20 € (p < 0.001) discharged to other settings ↑ 509.51€ (p< 0.001) compared to those deceased	non-surgical cases ↓ 3,948.12€ (p< 0.001) compared to surgical ones

*adjusted for regional factors

CONCLUSION

DEMENTIA-RELATED HOSPITALISATIONS IMPOSED A SUBSTANTIAL FINANCIAL BURDEN ON THE PORTUGUESE PUBLIC HEALTHCARE SYSTEM IN 2018 AND ARE EXPECTED TO RISE IN THE FUTURE

↳ costs were driven by key factors such as age, number of comorbidities, severity, destination of discharge, and hospitalisation type

INVESTMENT IN COST CONTAINMENT POLICIES

↳ to allow the NHS to effectively control the total expenditure