

REGIONAL ANALYSIS OF EARLY RETIREMENT DUE TO RHEUMATIC DISEASES IN PORTUGAL



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Objectives

To analyse the regional differences of early retirement due to Rheumatic diseases (RD) in Portugal.

Methodology

EpiReumaPt is a national, cross-sectional, population-based study conducted from September 2011 to December 2013. 10,661 inhabitants were randomly surveyed in order to capture and characterize all cases of RD within a representative sample of the Portuguese population. In this analysis we used participants aged between 50 and 65 years old, near the official retirement age.

Logistic regression was performed in order to understand the role of some factors on the risk of early retirement caused by RD, in particular geographic regions.

All results are based on weighted data reflecting the stratified sampling nature of the survey.

Results

- 3.9% (66,953) of the Portuguese population with ages between 50 and 64 years old (N=1,706,750) retired early due to RD, the majority (81.6%) being females (non-RD early retirees=443,890; 41.5% females).
- Azores and Alentejo had the highest estimates of early retirement due to RD (population shares of 7.2% and 5.5%, respectively), followed by the Lisboa e Vale do Tejo (LVT) and Center regions (both 4.3%. Table 1).
- Madeira and the North region had shares below the national average (2.2% and 3.2%, respectively).
- Algarve had the lowest share (1.7%), however it had the earliest average age of retirement due to RD (41.5 versus 54.8 national).
- On the opposite side, LVT is the region with oldest age of early retirement due to RD (58.6), but it had the highest number of early retirees due to RD (n=20,051/N=468,831).
- Structural variations, other than wage differences, may also have an influence, nevertheless we did not observe a significant regional effect in the risk of early retirement caused by RD (Table 2).

Table 1 – Descriptive Summary of Patient Profiles (N = 18)

REGION	Self-Reported RD Prevalence (%)	Retirement Caused by RD (%)	Average Age of Retirement Caused by RD
NORTH	29,9	3,2	53,5
CENTER	37,0	4,3	54,1
LISBON (LVT)	38,0	4,3	58,6
ALENTEJO	34,8	5,5	53,2
ALGARVE	24,1	1,7	41,5
AZORES	39,0	7,2	49,6
MADEIRA	34,3	2,2	48,6
NATIONAL	34,2	3,9%	54,8

■ better than national average ■ worse than national average

The multivariable model was adjusted for age, gender, area of residence (NUTSII), education level (primary school or less, medium and high) and other chronic diseases. Cofactors were excluded in the stepwise method if $p > 0.05$. Cofactor Age was transformed (mean centering) due to high multicollinearity (variance inflation factor > 10). § Cardiovascular includes risk factors hypertension and hypercholesterolemia.

Table 2 – Logistic regression results for early retirement caused by rheumatic diseases. (OR=Odds Ratio; 95% CI=95% confidence interval)

	Univariable OR (95% CI)	Multivariable OR (95% CI)
Rheumatic Diseases	11.88 (5.79-24.41)	6.77 (3.71-12.35)
Age	1.02 (1.01-1.03)	1.02 (1.01-1.03)
Gender (Female)	4.12 (2.04-8.31)	1.87 (1.03-3.39)
Area of residence		
North	1	1
Center	1.34 (0.51-3.52) NS	1.46 (0.65-3.28) NS
Lisbon	1.35 (0.34-5.38) NS	1.67 (0.56-4.97) NS
Alentejo	1.76 (0.61-5.10) NS	2.26 (0.86-5.91) NS
Algarve	0.52 (0.10-2.73) NS	0.99 (0.20-4.81) NS
Azores	2.36 (0.86-6.47) NS	2.88 (1.19-6.95)
Madeira	0.66 (0.21-2.03) NS	0.58 (0.19-1.69) NS
Educational Level		
Low	1	1
Medium	0.29 (0.13-0.66)	0.52 (0.25-1.11) NS
High	0.17 (0.07-0.42)	0.34 (0.14-0.82)
Chronic Diseases		
Cardiovascular§	2.22 (1.13-4.34)	-
Diabetes	2.31 (0.77-6.99) NS	-
Pulmonary	1.16 (0.46-2.92) NS	-
Allergy	2.56 (1.01-6.51)	-
Gastrointestinal	1.49 (0.75-2.95) NS	-
Neoplastic	0.68 (0.22-2.15) NS	-
Mental	4.39 (1.88-10.25)	2.41 (1.28-4.52)
Neurologic	1.28 (0.48-3.45) NS	-
N		2784

Conclusions

Substantial regional differences are observed on the impact of RD through early retirement. This should be further addressed to identify policies that manage health gains and to avoid the deleterious effect of RD on the labour force productivity.

Entidades Promotoras



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