

Self-Reported Rheumatic Diseases and Early Retirement in Portugal

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INTRODUCTION

- Rheumatic diseases (RD) cause physical disability that may lead to early retirement, generating high indirect costs to society.
- We aim to examine the association between self-reported RD and early retirement by using large real-world observational data in Portugal.

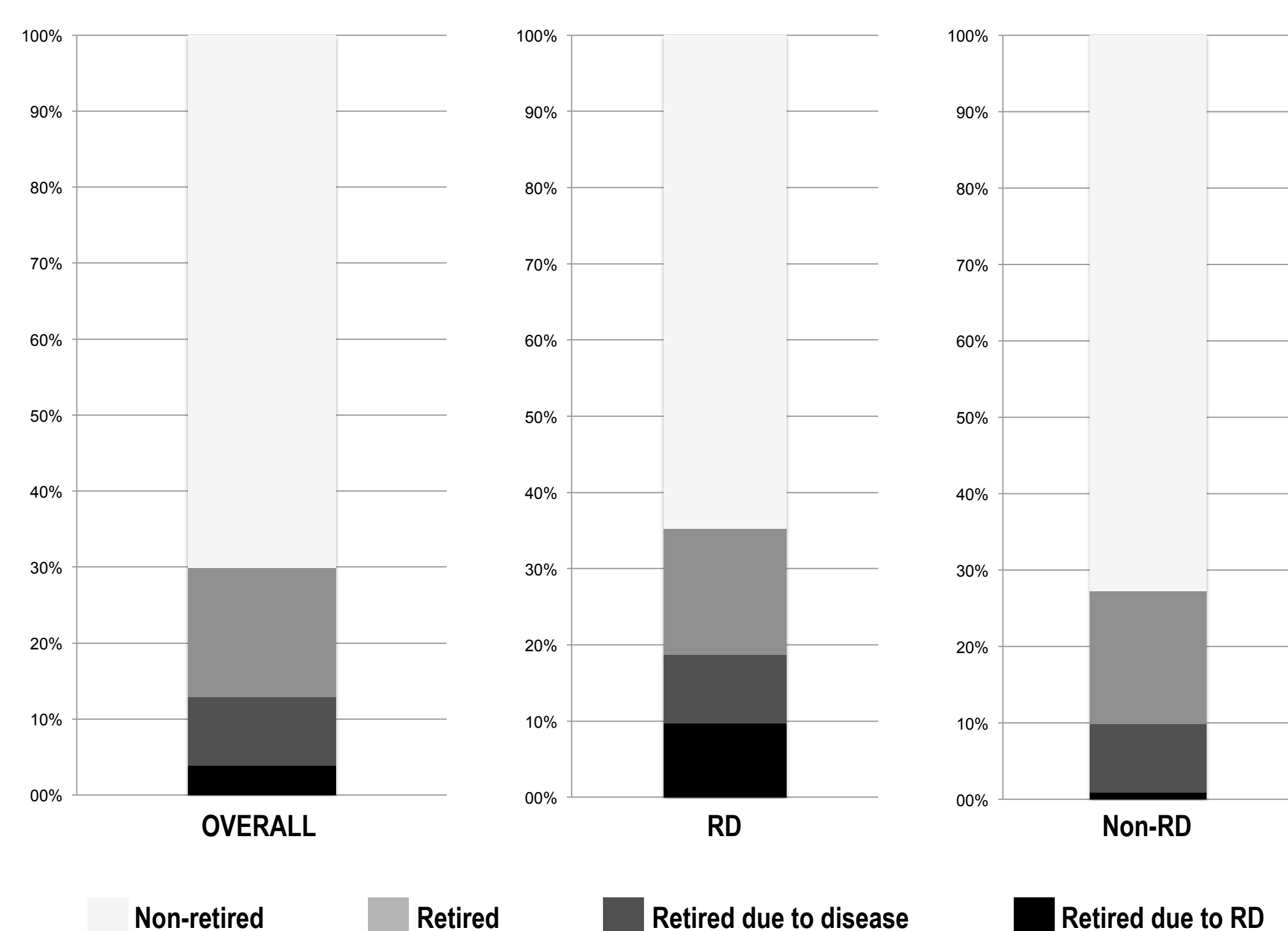
METHODS

- We used individual level data from the national, population-based EpiReumaPt study (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, which were stratified by administrative territorial units (NUTSII).
- In this analysis we used all participants aged between 50 and 65 years old, near the official retirement age (N=2,792; females: 1,727).
- The association of self-reported RD and early retirement was tested using logistic regression.
- All estimates were computed as weighted proportions, in order to take into account the sampling design.

RESULTS

- 29.9% of the Portuguese population with ages between 50 and 64 years old were officially retired.
- Among these, 43.2% were retired due to ill-health, which in turn about a third (30.4%) was specifically due to RD.
- Thus, 13.1% of all retirees self-reported RD as the main reason for early retirement.
- More than a third (34.2%; females: 46.3%) of all study population self-reported RD, being also more likely to self-report other main chronic disease (OR: 3.4; CI: 2.53-4.65; p<0.001).

Self-Reported Rates of Early Retirement by Type and Presence of Rheumatic Diseases



Prevalences of early retirement were computed as weighted proportions, in order to keep into account the sampling design of the EpiReumaPt study (N = 1,706,749)

RESULTS II

- 35.2% of RD respondents were retired versus 27.2% of those non-RD (p=0.025).
- Prevalence of self-reported RD seems to be associated with early retirement (unadjusted OR: 1.45; CI: 1.05-2.01; p=0.025).
- Some other characteristics are also associated with early retirement, in particular older age, male gender and presence of other chronic diseases.
- RD association tends to be independently associated with early retirement (adjusted OR: 1.37; CI: 1.01-1.84; p=0.042).

Logistic Regression Results

	Outcome: General Early Retirement		Outcome: Early Retirement due to RD	
	Univariable OR (95% CI)	Multivariable OR (95% CI)	Univariable OR (95% CI)	Multivariable OR (95% CI)
Rheumatic Diseases	1.45 (1.05-2.01)	1.37 (1.01-1.84)	11.88 (5.79-24.41)	6.77 (3.71-12.35)
Age	1.03 (1.02-1.03)	1.03 (1.02-1.03)	1.02 (1.01-1.03)	1.02 (1.01-1.03)
Gender (Female)	0.70 (0.52-0.94)	0.50 (0.37-0.66)	4.12 (2.04-8.31)	1.87 (1.03-3.39)
Area of residence				
North	1	1	1	1
Center	1 (0.71-1.41) NS	0.96 (0.65-1.44)	1.34 (0.51-3.52) NS	1.46 (0.65-3.28) NS
Lisbon	0.91 (0.58-1.43) NS	1.05 (0.66-1.66) NS	1.35 (0.34-5.38) NS	1.67 (0.56-4.97) NS
Alentejo	1.02 (0.67-1.55) NS	1.11 (0.68-1.82) NS	1.76 (0.61-5.10) NS	2.26 (0.86-5.91) NS
Algarve	0.71 (0.40-1.27) NS	0.60 (0.30-1.20) NS	0.52 (0.10-2.73) NS	0.99 (0.20-4.81) NS
Azores	0.90 (0.60-1.35) NS	0.96 (0.59-1.58) NS	2.36 (0.86-6.47) NS	2.88 (1.19-6.95)
Madeira	0.60 (0.40-0.89)	0.60 (0.37-0.98)	0.66 (0.21-2.03) NS	0.58 (0.19-1.69) NS
Educational level				
Low	1	-	1	1
Medium	0.71 (0.47-1.08) NS	-	0.29 (0.13-0.66)	0.52 (0.25-1.11) NS
High	0.59 (0.43-1.0.80)	-	0.17 (0.07-0.42)	0.34 (0.14-0.82)
Chronic Diseases				
Cardiovascular§	1.81 (1.34-2.44)	-	2.22 (1.13-4.34)	-
Diabetes	1.97 (1.40-2.75)	-	2.31 (0.77-6.99) NS	-
Pulmonary	1.77 (1.01-3.09)	-	1.16 (0.46-2.92) NS	-
Allergy	1.06 (0.75-1.50) NS	-	2.56 (1.01-6.51)	-
Gastrointestinal	1.72 (1.21-2.45)	1.67 (1.16-2.41)	1.49 (0.75-2.95) NS	-
Neoplastic	1.45 (0.87-2.42)	-	0.68 (0.22-2.15) NS	-

All initial multivariable models were 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.

CONCLUSIONS

- These results are similar with previous data from the National Health Survey conducted in Portugal nearly a decade ago.
- This confirms the impact that self-reported RD still have on early retirement.