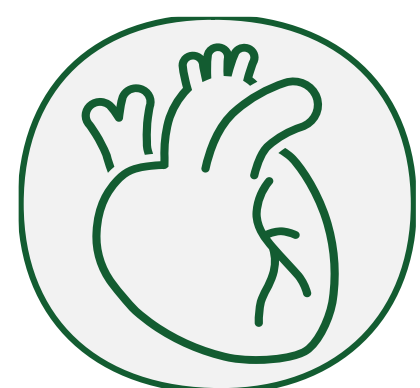


INTRODUCTION

Indirect costs evaluation is important for cost-effectiveness analysis considering the societal perspective. Heart failure (HF) is a chronic condition with varying degrees of severity directly impairing functional capacity. Our **objective** was to assess characteristics and economic burden of early retirement beneficiaries with heart failure (HF) in the Brazilian National Institute of Social Security (INSS).

METHODS

Inclusion criteria



ICD 10 Codes
I.50



10 years Period
2014 – 2023



Age Group
≥ 18 Years



Study Location
Brazil

RWE Outcomes Assessment

- ❖ Benefit duration was estimated considering the average life expectancy, according to sex and age, adjusting Brazilian life tables for the excess mortality attributable to HF and limiting to the observed period and expected retirement age.
- ❖ Premature retirement was calculated considering the age at benefit concession and expected retirement age. Expenditures (BRL) were calculated considering the duration and number of minimum wages granted, adjusting for inflation up to December 2023.

RESULTS



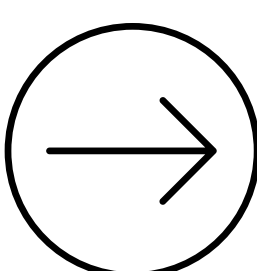
Mean age
53.9 ± 7.2 years



Men
78.9%



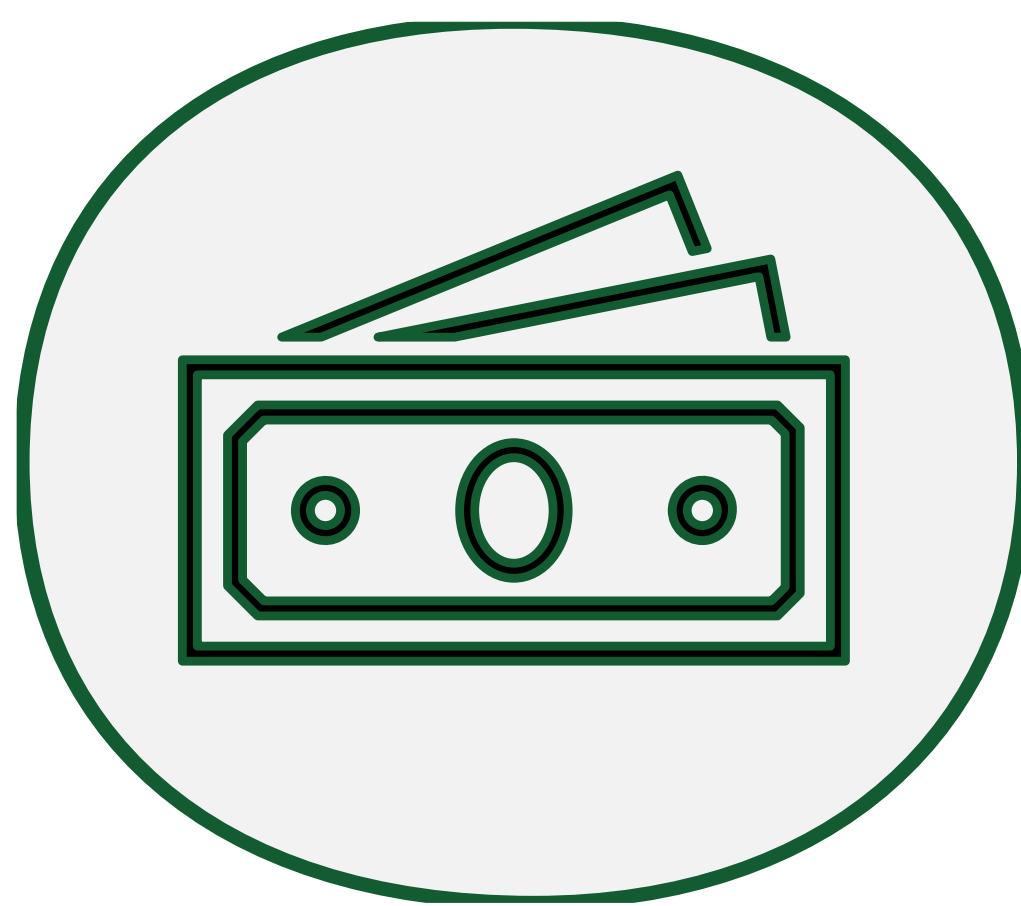
Benefits granted
126,877
(includes also aid/benefits
and social assistance)



Early Retirements
25,340

Table 1. Economic burden by beneficiary related to HF.

Variable	Result
Median benefit duration, months (adjusted)	44.4 months (IQR 18.9-63.6)
Total productivity loss	92,996 work-years
Mean premature retirement ± DP	10.1 ± 7.1 years
Median premature retirement	8.6 years (IQR 4.72-13.99)
Median total retirement wages, BRL	R\$ 72,745 (IQR R\$ 29,523 -118,639)



Total 10y expenditure with
early retirement
R\$2,256,493,130 (~2 billion)

Figure 1. Proportion of early retirements according to Brazilian regions.

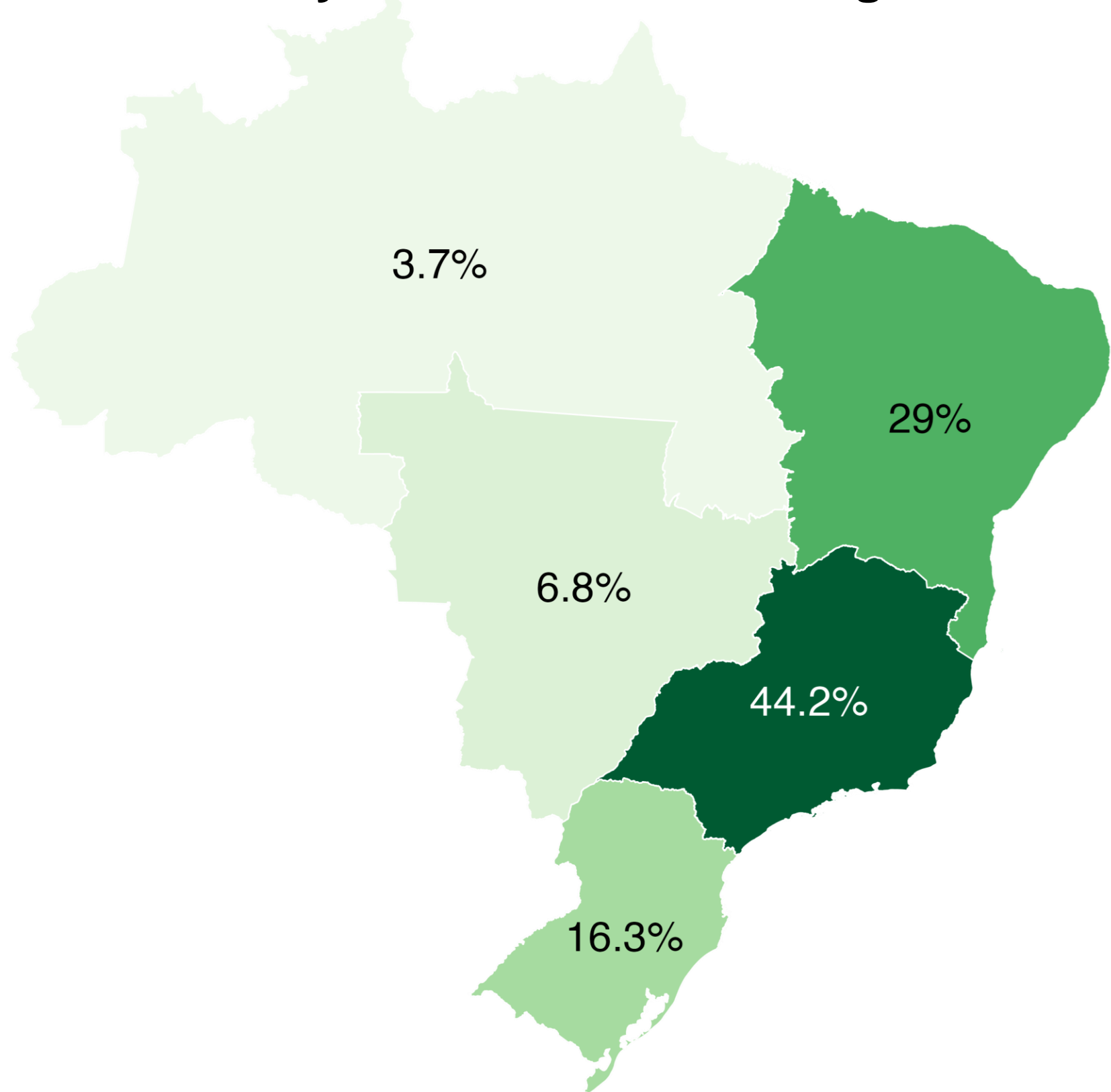
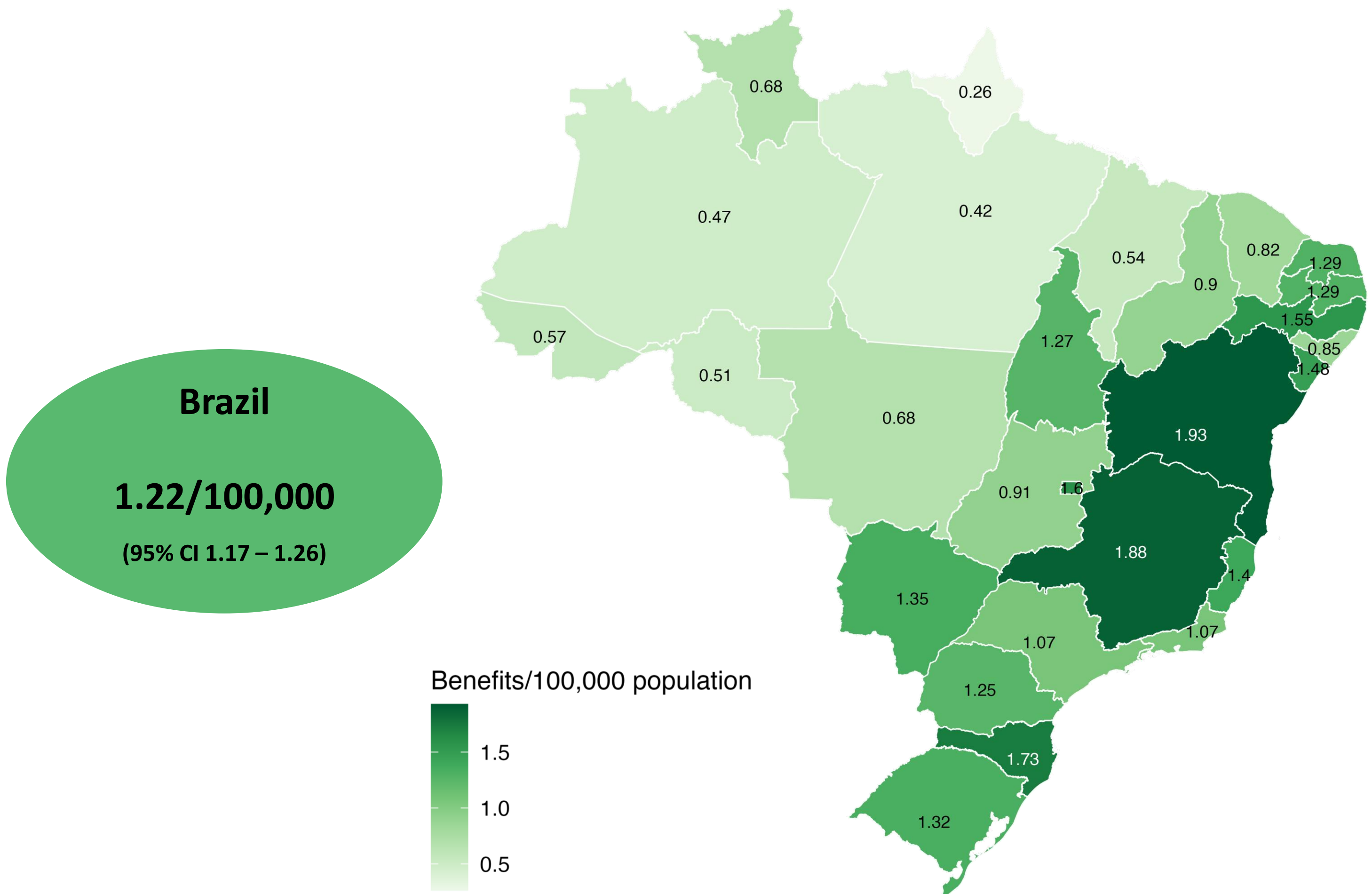


Figure 2. Geographic distribution of average annual benefits granted per 100,000 population.



CONCLUSIONS

In the last 10 years, Brazilian social security system incurred a burden exceeding 2 billion (BRL) solely attributable to retirements by HF. The negative impact of HF-related retirements in Brazil strains the social security system and hampers economic productivity. Distribution of benefits in the Brazilian regions followed the population distribution.

