

The dementia diagnosis gap in Brazil: A six-year population-based analysis from the ELSI-Brazil study

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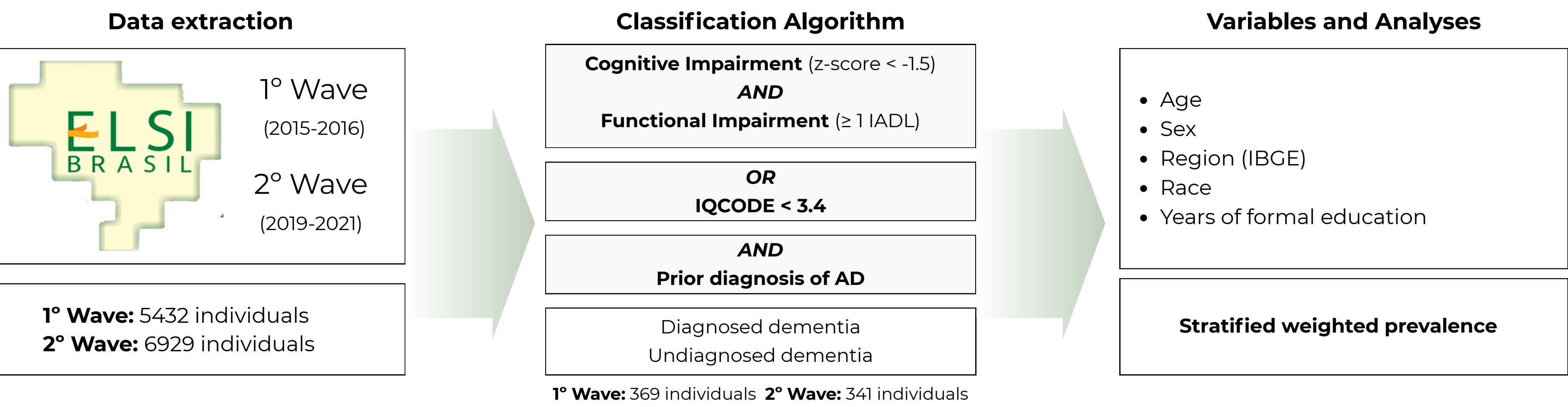
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Introduction

Dementia underdiagnosis restricts equitable access to care and emerging therapies in Brazil. This study aimed to estimate changes in the prevalence of undiagnosed dementia and to identify associated sociodemographic and geographic factors in a nationally representative sample of older Brazilian adults.

Methods



Results

Table 1. Sample characteristics according to ELSI-Brazil waves and group categories.

	W1 (2015-2016)			W2 (2019-2021)		
	Diagnosed dementia (n = 41)	Undiagnosed dementia (n = 344)	Non dementia (n = 4927)	Diagnosed dementia (n = 62)	Undiagnosed dementia (n = 282)	Non dementia (n = 6075)
Age, mean years (SD)	80.9 (7.81)	76.8 (9.67)	69.7 (7.49)	83.6 (8.71)	78.4 (10.1)	70.5 (7.86)
Education, mean years (SD)	3.03 (3.50)	1.9 (3.02)	4.71 (4.24)	2.32 (2.86)	2.92 (3.53)	4.76 (4.16)
Women, n (%)	30 (73.2%)	234 (68.0%)	2919 (59.2%)	43 (69.4%)	175 (62.1%)	3606 (59.4%)
Ethnicity, n (%)						
White	22 (53.7%)	99 (28.8%)	1984 (40.3%)	33 (53.2%)	118 (42.56%)	2865 (47.2%)
Non-White	19 (46.3%)	214 (71.9%)	2943 (59.7%)	29 (46.8%)	161 (57.44%)	3210 (52.8%)
Zone, n (%)						
Rural	2 (4.9%)	91 (26.5%)	767 (15.6%)	11 (17.7%)	54 (19.1%)	962 (15.8%)
Urban	39 (95.1%)	253 (73.5%)	4160 (84.4%)	51 (82.3%)	228 (80.9%)	5113 (84.2%)
Cognitive composite, mean z-score (SD)	-2.53 (0.73)	-2.31 (0.60)	-0.07 (1.01)	-2.66 (0.76)	-2.27 (0.55)	-0.06 (0.90)
IQCODE, mean score (SD)	4.60 (0.52)	4.27 (0.55)	2.95 (0.41)	4.73 (0.45)	4.34 (0.55)	2.90 (0.45)

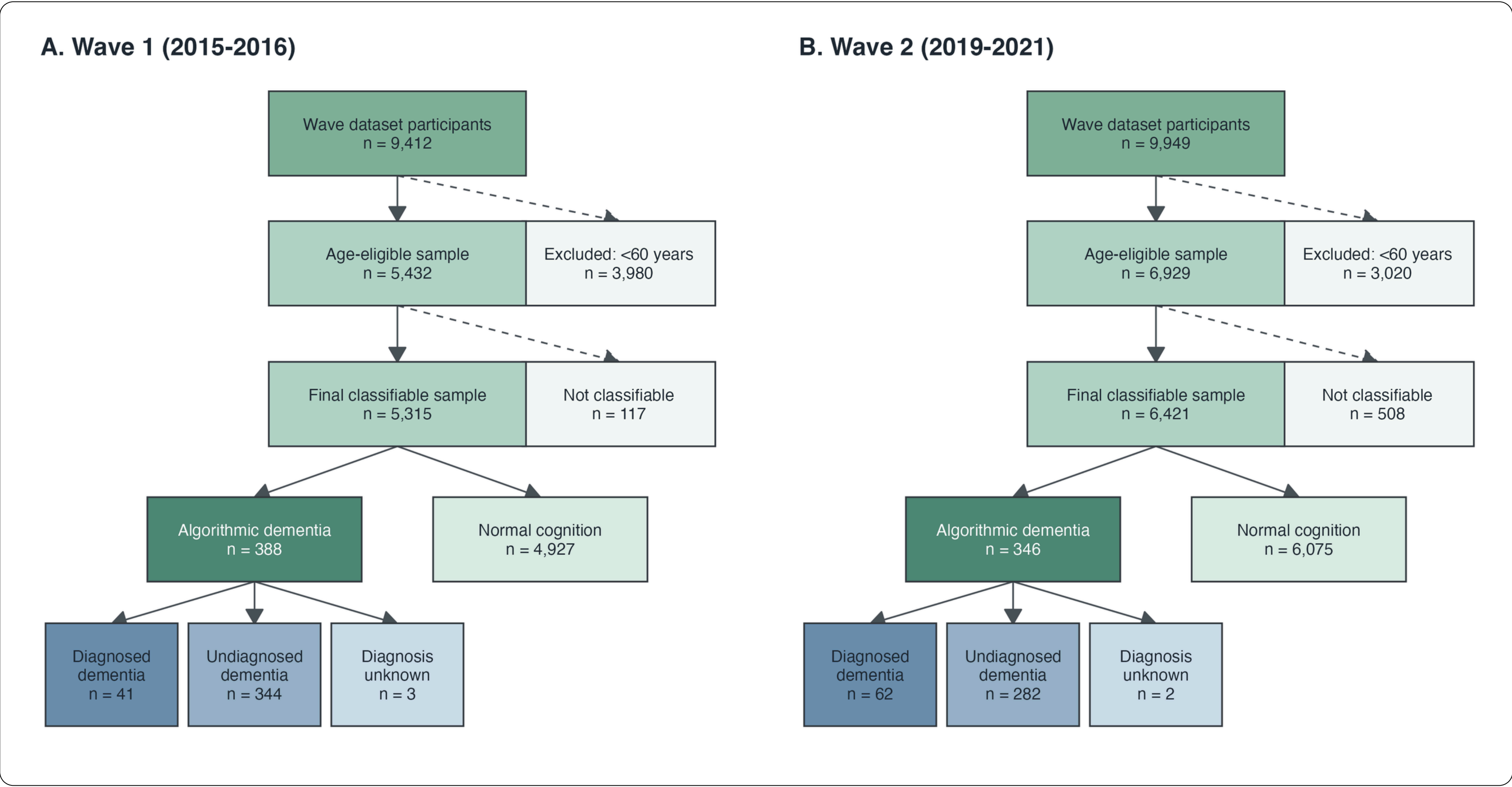


Figure 1. Participant selection and dementia classification by ELSI-Brazil wave. Boxes indicate unweighted sample sizes (n) relative to the preceding parent group. Diagnosis subgroups (diagnosed, undiagnosed, unknown) are derived solely from the algorithmic dementia subset.

Acknowledgement



Conclusion

Although undiagnosed dementia in Brazil remains high, its prevalence decreased significantly over the six years, particularly among vulnerable groups, individuals with low education, women, Non-white populations, and in the Northeast. These findings suggest that the expansion and continuity of primary care are beginning to reach historically underserved populations. **However, substantial regional inequalities persist, highlighting the need for targeted public health policies and active case-finding to bridge diagnostic gaps in isolated territories.**

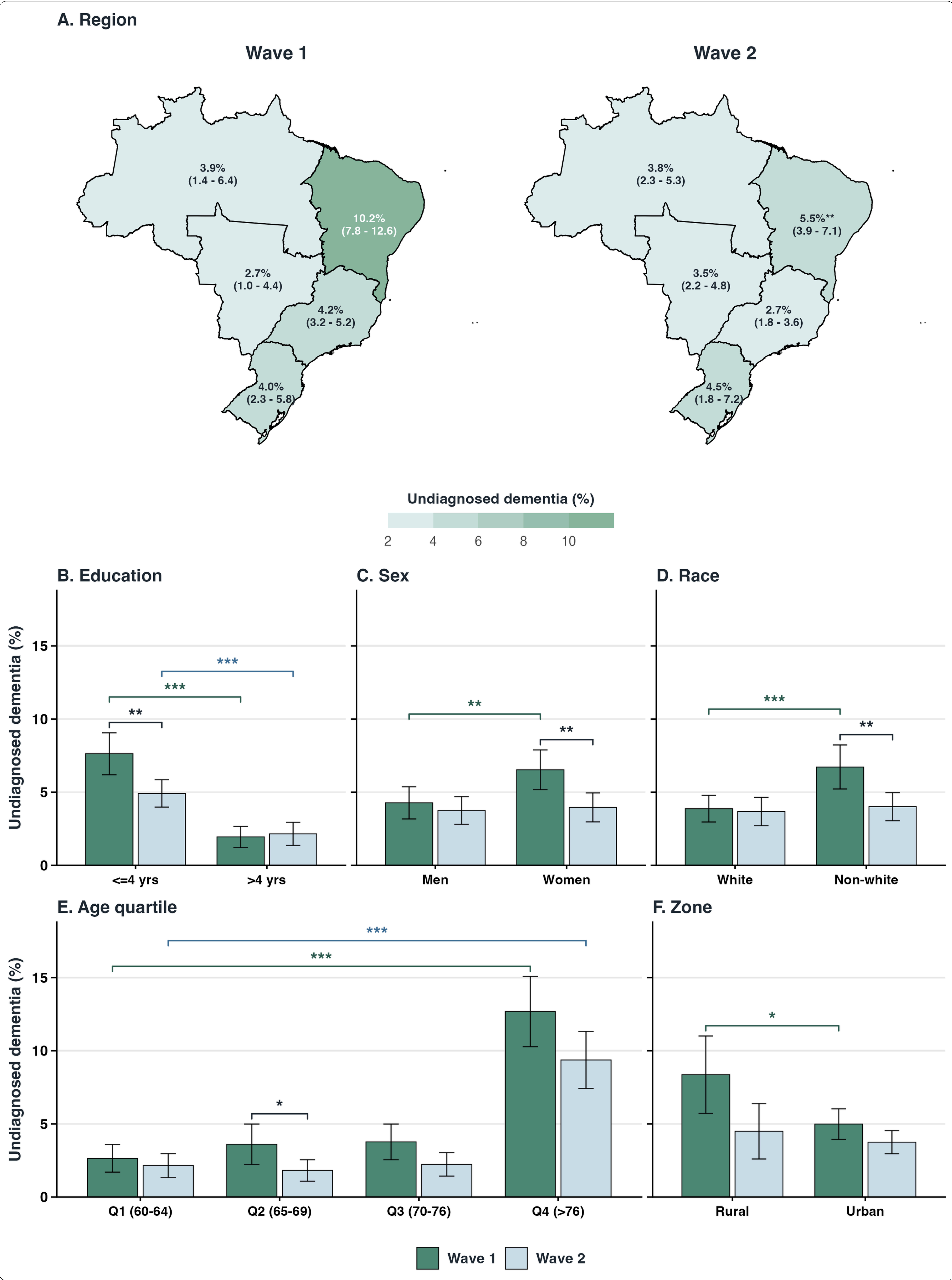


Figure 2. Survey-weighted prevalence of undiagnosed dementia in ELSI-Brazil Waves 1 (2015-2016) and 2 (2019-2021). (A) Regional prevalence estimates; map labels show prevalence percentage and 95% confidence interval. (B-G) Undiagnosed dementia prevalence in the overall analytic sample and by sex, age quartile, race, residential zone, and education. Bars represent survey-weighted prevalence estimates, and error bars represent 95% confidence intervals. Black brackets denote a statistically significant across-wave change in prevalence, and coloured brackets denote a statistically significant within-wave difference (green, Wave 1; blue, Wave 2). All significance is FDR adjusted: * $q < 0.05$, ** $q < 0.01$, *** $q < 0.001$.