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GRELL

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Breast cancer survival by subtype, stage at diagnosis and socioeconomic status among young women in Madrid, Spain

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Introduction – Breast cancer

1 Epidemiology

- Among women, BC is the most common cancer worldwide
- 25% of new BC cases are diagnosed in women under 50 years
- Incidence and survival disparities across socioeconomic status

Spain:
Incidence (2025): 149 cases/100,000
5-year Survival (OS|NS): 82% | 87%
Mortality (2023): 6,402 women died from breast cancer

2 Breast cancer characteristics

- Heterogeneous group of diseases

Etiopathogenic characteristics
Behaviour
Molecular characteristics
Stage at diagnosis
Treatment approaches

3 Aim of this study

Determine 5-years survival estimates of breast cancer diagnosed in young adult women (20-49 years) in 2018 by grade, molecular subtype, stage at diagnosis and socioeconomic deprivation

Material and methods

Data collection

PBCR – Community of Madrid (Spain)

ENCR & IARC coding recommendations

Population of study

Primary invasive BC
Women aged 20-49 years
01/01/2018-31/12/2018
Living in CM at least 6 months

Variables

Personal identification
Date of incidence
Topography
Laterality
Morphology
Histological grade
Behaviour
Basis of diagnosis

Molecular subtype
Stage at diagnosis
Socioeconomic deprivation (SDI)
Vital status (31st December 2023)

Data analysis

Descriptive analysis

Incidence rates

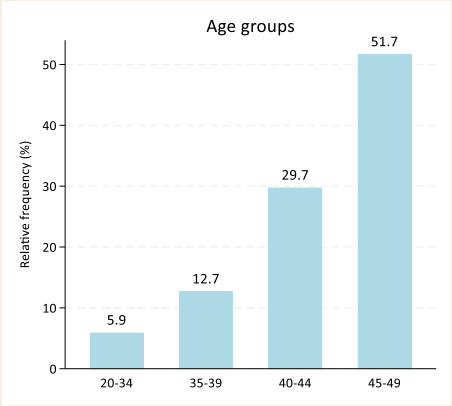
Observed survival estimate – Kaplan Meier
Net survival estimate – Pohar Perme estimator

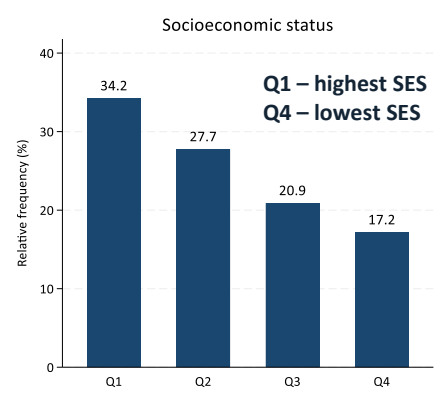
Excess Hazard Ratio - Flexible parametric models("stpm2")

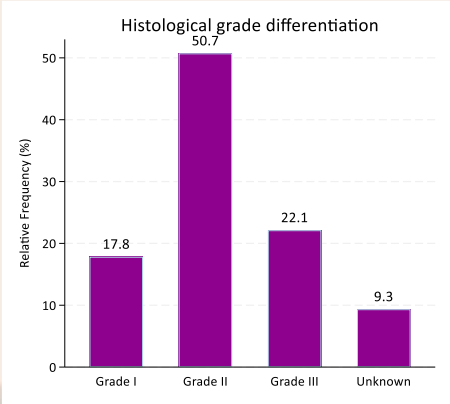
Results

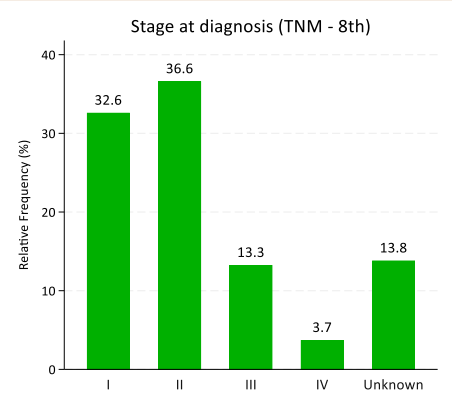
Descriptive analysis

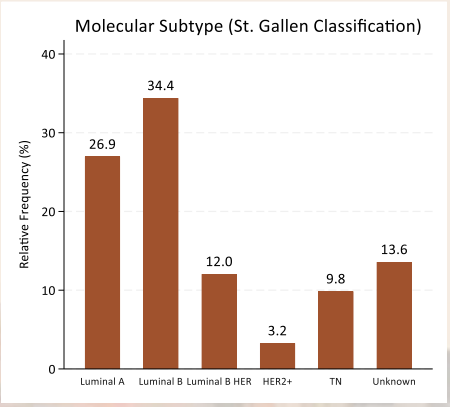
1,049 new cases were included











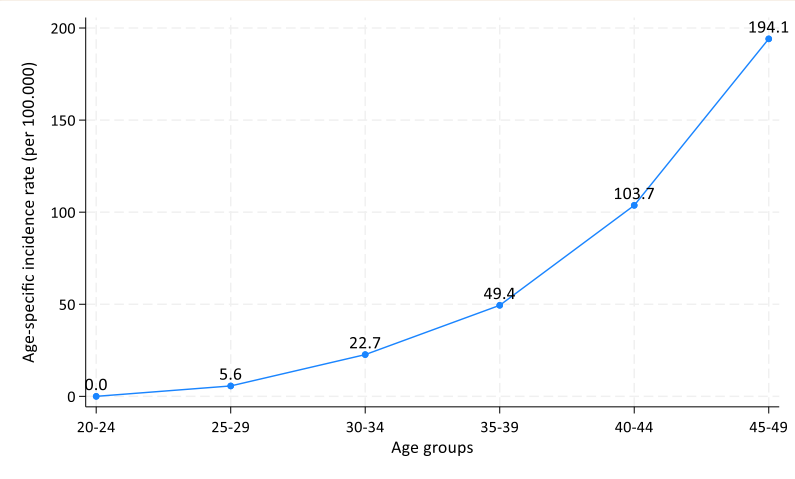
Incidence rates

Results

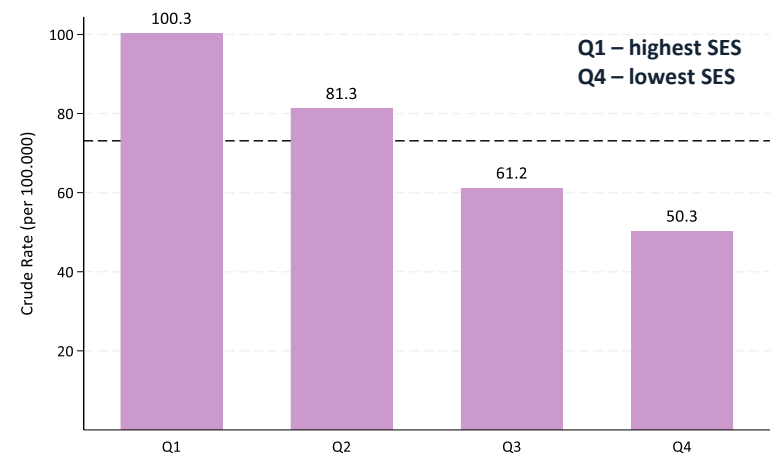
66 new cases per 100,000 women

*Age-adjusted incidence rate (Europe 2013)

Age-specific incidence rate

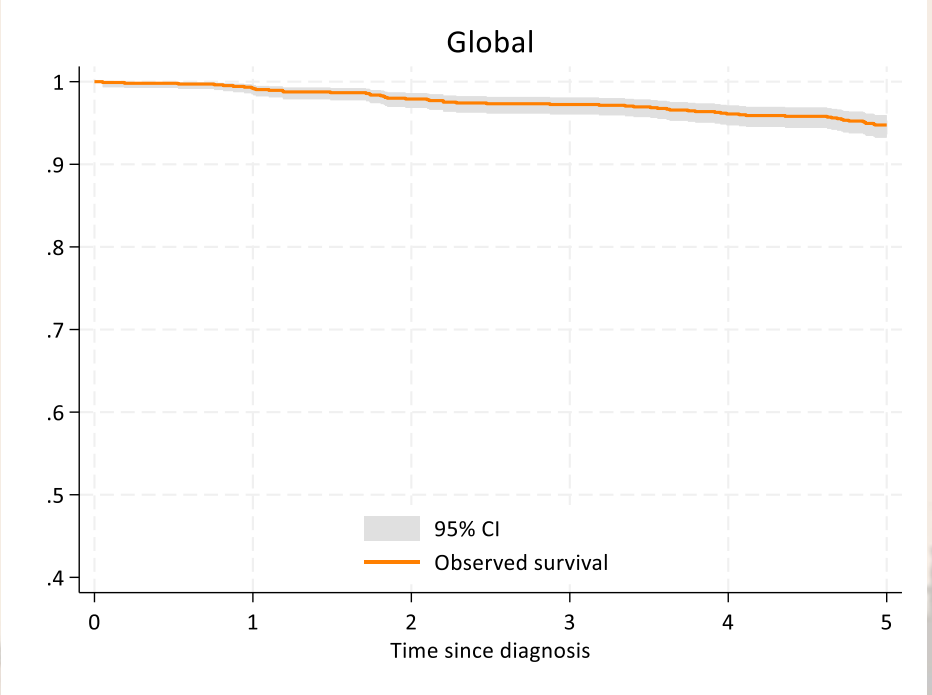


Crude rate by socioeconomic status



Results

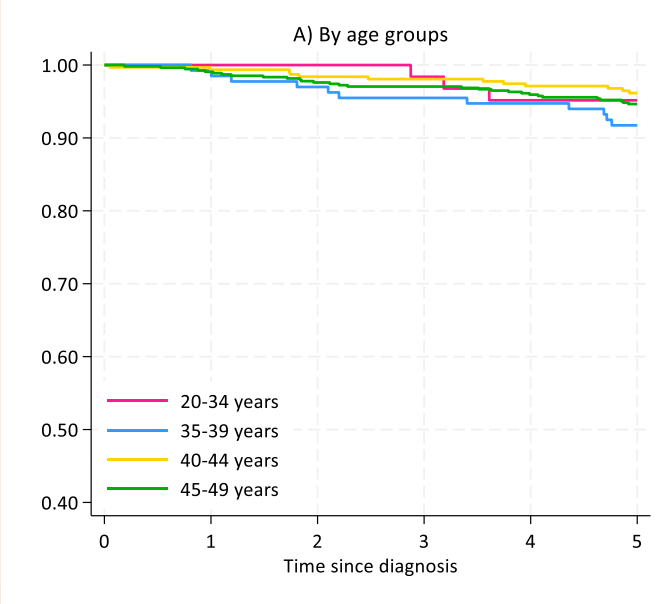
Observed Survival

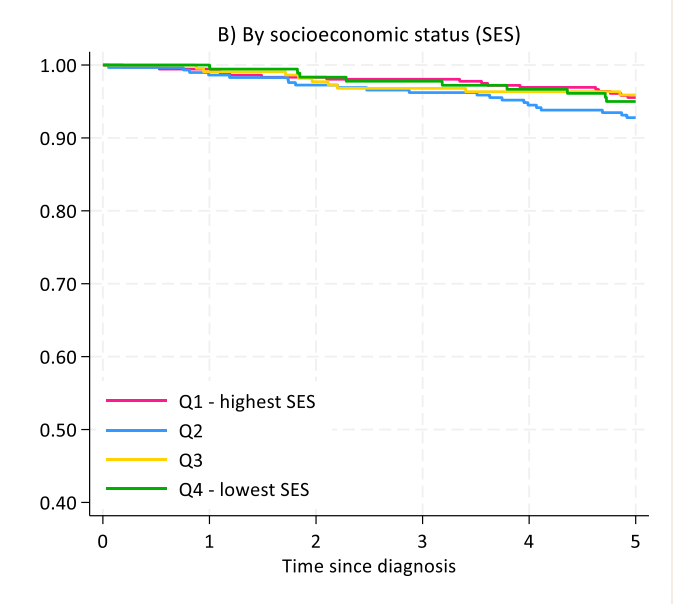


Results

Observed Survival

By age groups and socioeconomic status



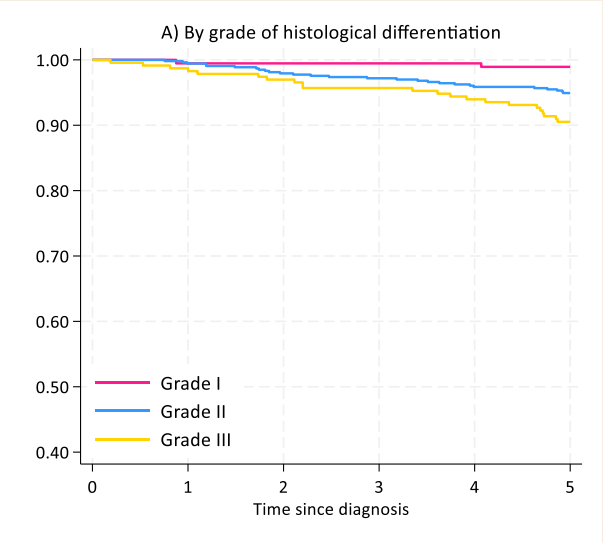


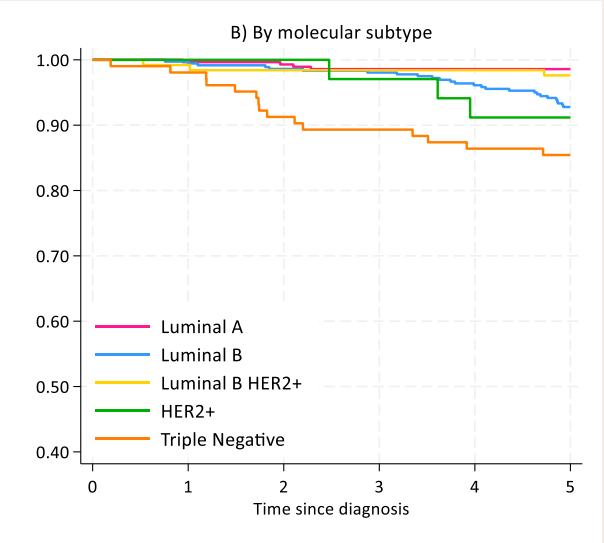
No differences were found by age groups nor socioeconomic status

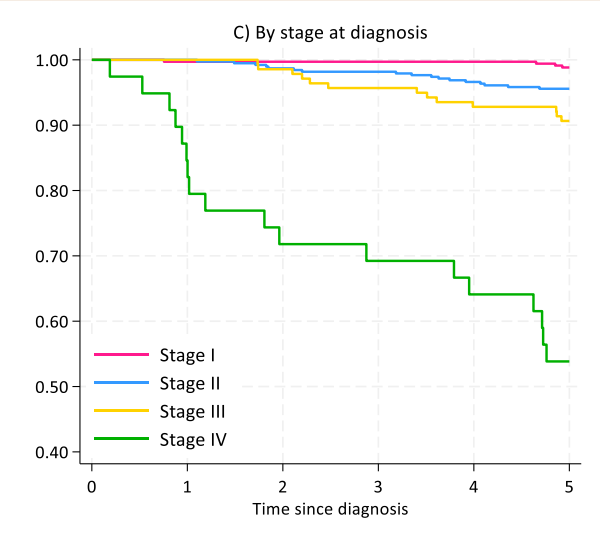
Results

Observed Survival

By histological grade, molecular subtype and stage at diagnosis







Results

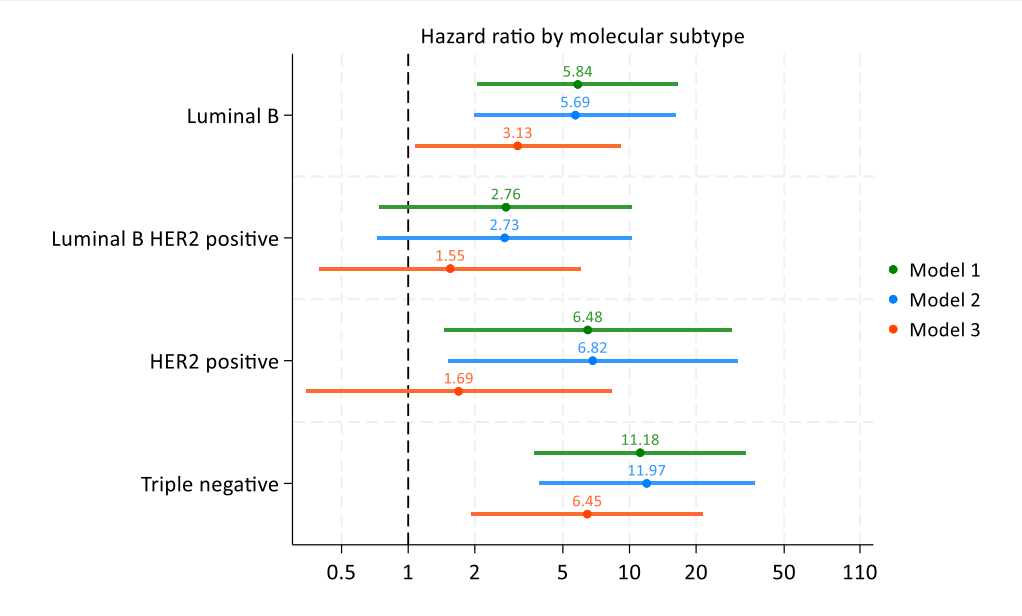
Excess Hazard Ratio

(ref) Luminal A molecular subtype

Model 1: Crude hazard ratios

Model 2: Adjusted by sociodemographic characteristics

Model 3: Adjusted by sociodemographic and tumour characteristics



Discussion

- Our results emphasize the effect of age and socioeconomic status on **cancer risk**, and support the association of grade of histological differentiation, molecular subtype and stage at diagnosis on **prognosis**.
- In contrast with other type of tumours, high socioeconomic status women showed **the highest incidence rate** of BC.
- The survival for BC in the studied women were remarkably high, reaching around **95% of survival** at 5-ys.
- Poorly differentiated tumours, triple-negative and stage IV at diagnosis showed the **lowest survival**.

Conclusions

- This study provides in-depth information on BC incidence and survival rates in young adult women in the Community of Madrid.
- BC incidence and survival rates, broken down by age and tumour characteristics, are essential indicators for clinicians when establishing a patient's **prognosis** and to inform **treatment decisions**.
- PBCR are able to implement systematic and standardised procedures that ensure **accurate epidemiological surveillance**.
- Exploring social disparities in cancer brings such a valuable information that must be taken into account for **future measures and cancer control plans**.

Thank you for your attendance

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