



# Poverty and cancer incidence during the Greek austerity period: Insights from Cancer Registry of Crete

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## Purpose

➤ The association of **socioeconomic status** and **cancer morbidity** was always on the focus of epidemiologists and policy makers. **Greece** is a country that has been greatly affected by the **economic crisis**.

**Overall aim:** to investigate its **impact** on cancer incidence.

## Methods

❖ **Site-specific cancer data** and **poverty data** were used. Cancer new cases and deaths per site were obtained from CRC's database (1992-2013). According to the site recode ICD10-O, 39 sites were included in the analysis.

❖ The **Age-Adjusted Incidence Rates** (ASIR) and **Age-Standardized Mortality Rates** (ASMR) were estimated. The Human Poverty Index (HPI-2) for high income countries assessed poverty per municipality in Crete at two time periods (1991-2000; 2001-2011). HPI was grouped in five categories across Crete's municipalities.

❖ Cancer cases were studied at place of residence during the time of diagnosis. The **Risk Ratio** (RR) of the highest-to-lowest poverty category was measured using Poisson regression, adjusting for age.

## Results - I

❑ **HPI** varied significantly (Pvalue=0.03) among Crete's municipalities, ranging **from 9.3 to 30.2**. Association between poverty and cancer incidence was observed in **36** out of **39 sites**, while in **30 sites** were found to be **significantly associated** (Pvalue<0.05).

❑ A total of **22 sites** presented **monotonic increases or decreases in risk** across poverty categories from 1992 to 2013 (**RRs** ranged **from 0.3 to 2.9** depending on the site).

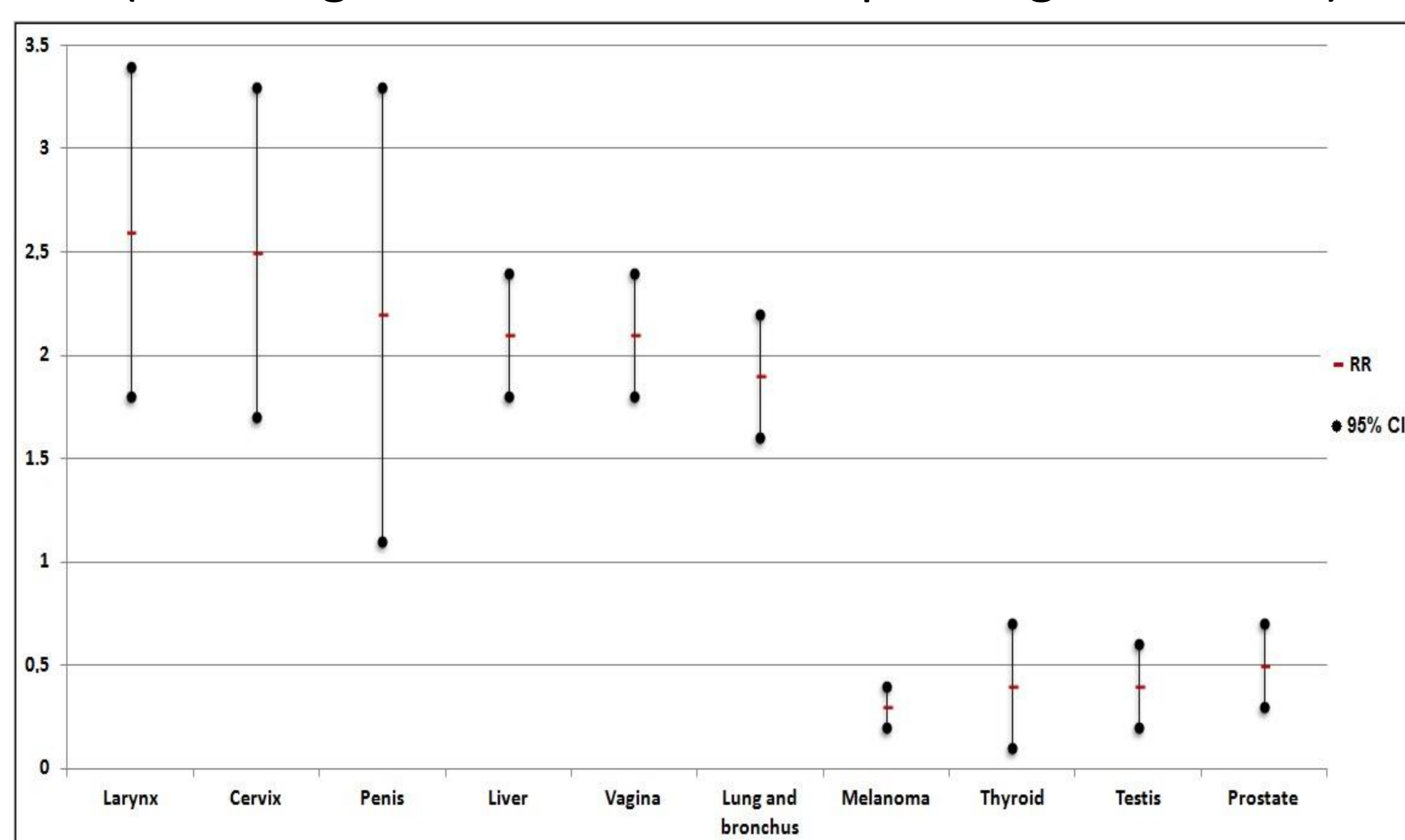


Figure 1: RR per site from 1992 to 2013

## Results - II

➤ Several variations on RRs were observed among the municipalities of Crete, with **urban/semi-urban municipalities** of Lasithi county and rural municipalities of the counties of Heraklion, Chania and Rethimnon to present **stronger association of poverty and cancer incidence** (Pvalue<0.05).

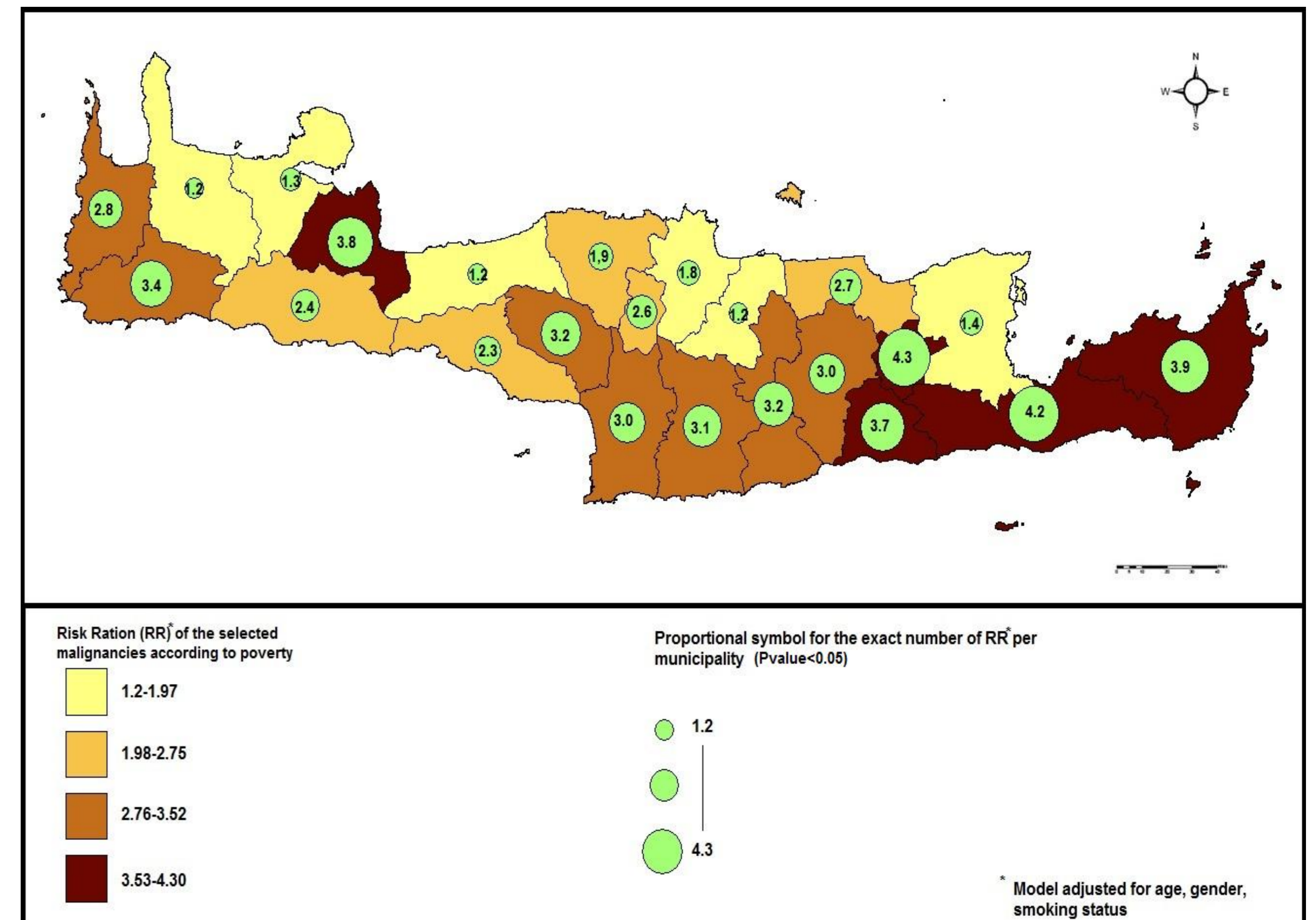


Figure 2: RR according to poverty per municipality

## Discussion

➤ **Poverty** is associated with a huge array of **diseases** that are affected by poor living conditions, limited resources or accessibility to healthcare system.

➤ Results of this study are **on line with other** European and American **studies**.

➤ **Factors** that seem to co-exist in poor population groups are: **smoking, alcohol consumption, diet, exposure to indoor and outdoor air pollution**.

## Conclusion

**Socioeconomic status** appears as an **important variable** in national cancer surveillance, especially during **austerity** times.

## Future research

✓ **Field study** in high/low risk municipalities to explore the **hidden factors** among population groups of higher/lower socioeconomic status.

✓ Explore and conduct **targeted interventions** to vulnerable population groups.

## Affiliations:

1. Cancer Registry of Crete

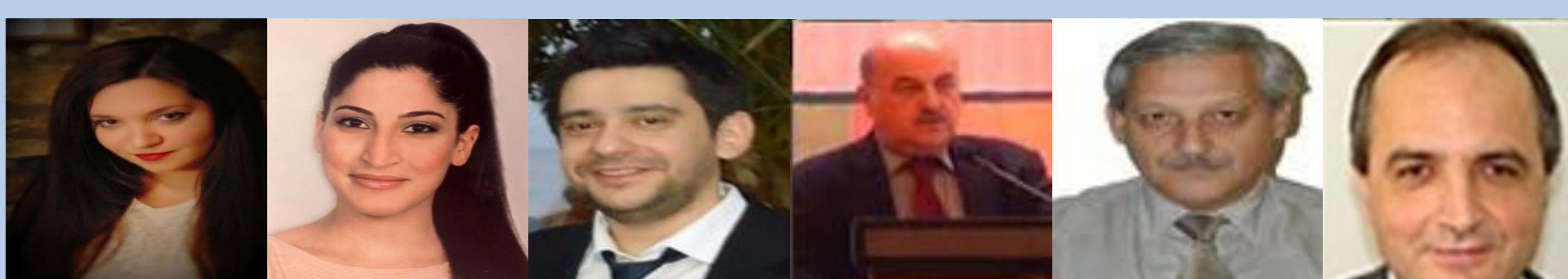
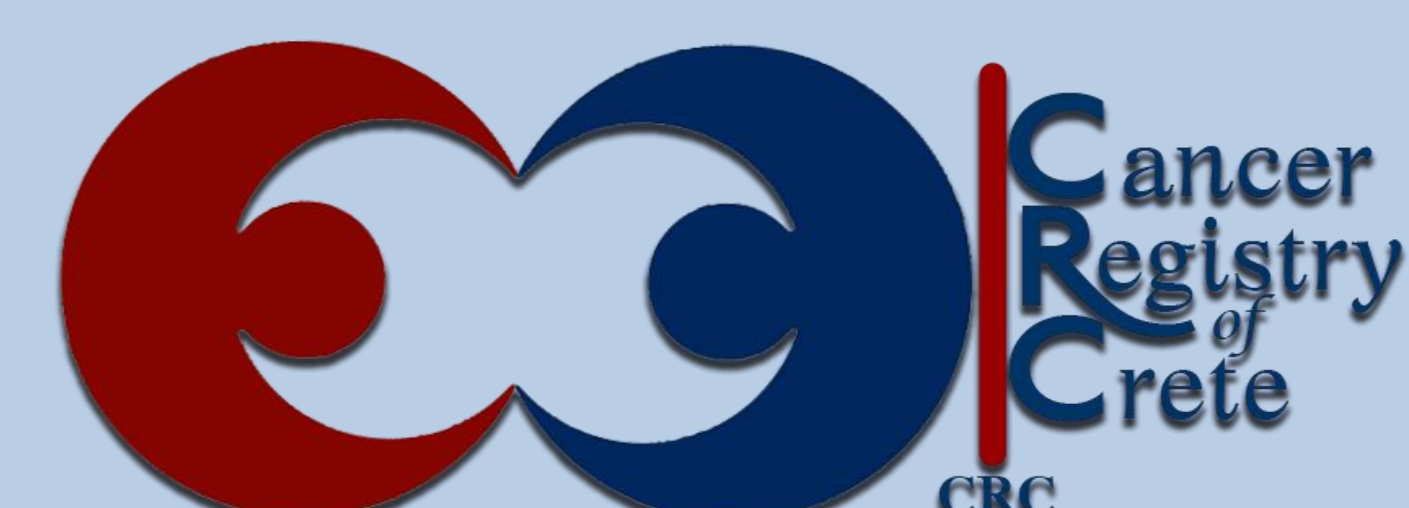


Figure: CRC's team. Photos are placed according to authors order.



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