



# Lung cancer geographical variation in Crete, 1992-2013. Insights from a population-based registry



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## Purpose

❖ **Systematic records** of malignant neoplasms is a **neglected issue in Greece**.

❖ The **Cancer Registry of Crete (CRC)** is the **only population-based regional registry** in the country since 1992.

**Overall aim:** assess lung cancer (LC) burden in Crete, identify hot spots and explore the effects of selected factors.

## Methods

✓ **LC cases (1992-2013)**

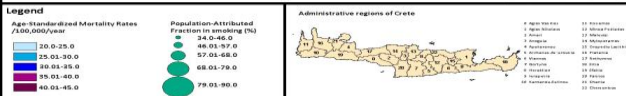
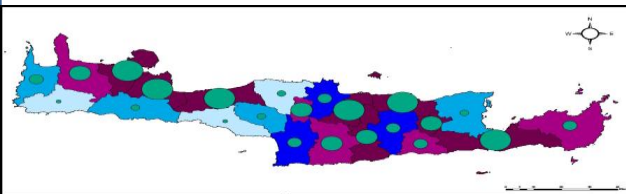
✓ Age-Standardized Incidence and Mortality Rates/100,000/year (**ASIR and ASMR**).

✓ **Kaplan-Meier curves** (1st, 5th, 10th and 15th year after diagnosis).

✓ **Getis Ord G\*** and **spatial regression model (a=0.05)**.

## Results - I

❑ **ASIR both genders=40.2;** males=**73.1;** females=**11.8** /100,000/year.



**Figure:** AAIR/100,000/year per municipality and population-attributed fraction in smoking

❑ **LC hot spots:** in south-east and north-west Crete (RR=2.1; 95%CI= 1.381-3.205).

❑ **Hot spots of LC survival vary significantly among the Cretan municipalities,** with females to present lower survival in rural regions (eg. 5% of females survived after the 10th year of diagnosis in the Municipality of Anogia).

## Results - II

❑ **8% survived LC for 10 or more years** (year of diagnosis; 1st: 35 %, 5th: 12.7%, 10th: 8.1 % and 15th: 7.8%).

❑ **Risk [β(95%CI)] after the 5th year from diagnosis:** co-morbidities=**2.9(1.0-4.7);** smokers=**3.1(1.8-4.34),** alcohol=**1.9(1.1-2.7);** urban=**2.4(1.3-3.6).**

## Conclusion

LC in Crete is **lower than in Europe,** presenting **constantly increasing trends** and **geographical variation** in this genetically homogeneous population.

## Main messages

✓ **Geographically-oriented public health measures** have to be performed to minimize the inequalities in Crete.

✓ Further research will be done on **environmental risk factors** and **LC**.

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