

TRENDS IN LUNG CANCER INCIDENCE AND MORTALITY IN CROATIA IN THE 21ST CENTURY

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Background

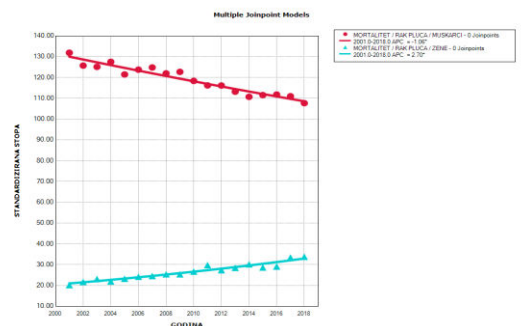
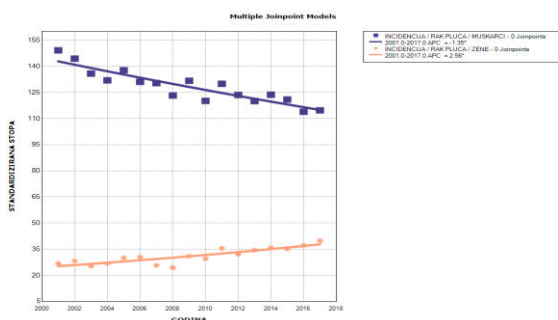
- According to the international estimates the burden of disease regarding lung cancer in Croatia is high in comparison to other European countries (high incidence and mortality, low survival rates), and it is important to have an up-to-date insight to these issues.
- Many countries also report disparate trends in men and women. Our aim is to analyse incidence and mortality trends from lung cancer in Croatia, separately for men and women.

Material & Methods

- Data on deaths and incident cases was obtained from relevant national databases.
- Age-specific incidence and mortality rates were calculated using the revised mid-year population estimates of the CBS, and rates were standardized using the age structure of Croatian Census 2011 population (HR11).
- We used a Joinpoint Regression analysis to describe trends, with a maximum of 2 joinpoints and a Monte Carlo simulation to calculate p-values.

Results

- Standardized incidence rates (ASR-HR11) for lung cancer in the 2001-2017 period decreased from 149.1 to 114.7/100,000 in men, and increased from 26.8 to 39.9/100,000 in women. Joinpoint analysis showed an APC (annual percent change) of -1.3% in men (95%CI=-1.7 to -1.0; p<0.001), and +2.6% (95% CI=1.7 to 3.4; p<0.001) in women.
- Standardized mortality rates (ASR-HR11) in the 2001-2018 period decreased from 131.9 to 107.6/100,000 in men, and increased from 20.2 to 33.8/100,000 in women. Joinpoint analysis showed an APC of -1.1% in men (95%CI=-1.2 to -0.9; p<0.001), and +2.7% (95% CI=2.3 to 3.1; p<0.001) in women. There were almost 50,000 deaths in 2001-2018 period due to lung cancer in Croatia.



Conclusion

- Trends in lung cancer incidence and mortality in Croatia are mostly similar to those in neighbouring countries, with a decrease of age-standardized incidence in men but a pronounced increase in women, mostly as a reflection of changing smoking habits in the past couple of decades.
- In the advent of possible major changes in these trends (the introduction of the first Croatian National Cancer Plan, the National Lung Cancer Screening Programme, the availability of new immunotherapies for certain subtypes of lung cancer, etc.) it is of utmost importance to have a starting point for future comparisons.