

Smoking and lung cancer trends in the last four decades in women in Navarra



Marcela Guevara^{1,2}; Josu Delfrade^{1,2}; M^a Isabel Eciolaza¹; María Aldareguía¹; Rosana Burgui^{1,2}; Yugo Floristán^{1,2}; Conchi Moreno-Iribas^{1,3}; Eva Ardanaz^{1,2}



1. Instituto de Salud Pública de Navarra, Navarra, España
2. CIBER Epidemiología y Salud Pública (CIBERESP)
3. Red de Investigación en Servicios de Salud en Enfermedades Crónicas



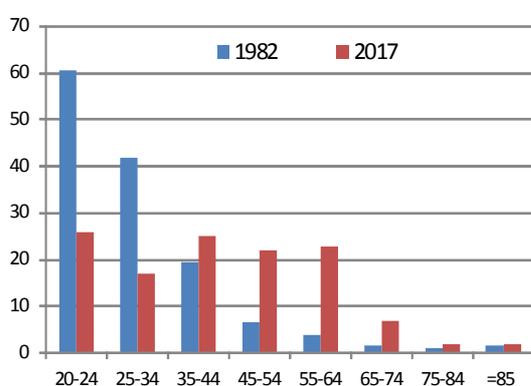
OBJECTIVES

Lung cancer is the second leading cause of death from cancer in Spanish women. We analysed trends in lung cancer incidence and mortality, and their relation to trends in cigarette smoking, in the last four decades in the female population in Navarra, Spain.

RESULTS

In 1982, the prevalence of current smoking among women ranged from 61% and 42% in the age groups of 20–24 and 25–34, respectively, to <2% in those ≥65 years, i.e. the highest prevalence was observed among women born between 1950 and 1960. In 2017, the smoking prevalence was higher than 20% among 20–64 years old women.

Prevalence of current smoking among women Navarra, 1982 and 2017



The overall incidence of lung cancer in women increased by 225%: from 5.6 to 18.2 per 100,000 between 1978–1982 and 2008–2012.

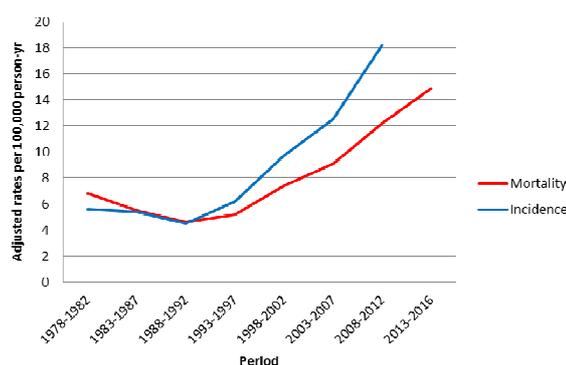
The lung cancer mortality increased by 120%, from 6.8 to 14.9 per 100,000, between 1978–1982 and 2013–2016, showing a cohort pattern similar to that of the incidence.

Age-specific rates showed a pronounced cohort (period of birth) pattern, picking in the cohort born in 1950–1960, with a rate of 59 cases per 100,000 in 2008–2012.

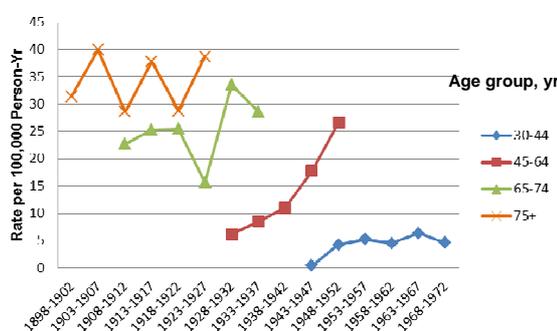
METHODS

- We estimated the population-based incidence and mortality of lung cancer in women according to age group, year of birth and calendar period of diagnosis.
- Incidence (1978–2012) and mortality (1978–2016) data were retrieved from the Navarra cancer and mortality registries. Rates were adjusted by the European standard population.
- Prevalence of cigarette smoking was studied using data from three representative surveys conducted in 1982, 2012 and 2017.

Incidence and mortality of lung cancer in women, Navarra, 1978–2016



Age-specific incidence rates of lung cancer in women according to birth cohort, in Navarra



CONCLUSIONS

- The lung cancer incidence in women more than tripled over the last four decades in Navarra.
- An increase in the incidence in the older age groups is likely to be observed in the coming years, as the women born between 1950 and 1960 get older, reflecting the lagged effects of the smoking epidemic.
- Smoking prevalence and lung cancer trends highlight the problem of tobacco use among women and emphasize the continuing need for strong antismoking programmes.