Patterns and trends of tobacco consumption in the Portuguese population:
National Health Surveys 1987; 1995; 1998; 2005

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Introduction

• Smoking is a significant risk factor for many diseases, particularly respiratory, cardiovascular and cancer.

• There is considerable scientific evidence that smoking patterns differ substantially between genders:
  – Men have higher prevalence of tobacco consumption
  – Socio-demographic characteristics associated with consumption are also different in men and women

• Describing smoking patterns and trends, by gender, in the Portuguese population is important for improving the effectiveness of preventive strategies, monitoring, and evaluation.
Aim and Objectives

• Aim:
  – Contribute to the epidemiological knowledge of smoking in Portugal

• Objectives:
  – Describe trends in smoking prevalence by gender between 1987 and 2005
  – Characterize socio-demographic factors associated with smoking between 1987 and 2005
Methods


Tobacco consumption
• Daily consumption during the 2 weeks before the data collection

Socio-demographic variables
• Age
• Marital status
• Administrative Region
• Educational level
• Professional status/Professional group

• Stratified prevalences (Standardized, Direct method, European population)
• Logistic regression model for each survey

During all the analysis each gender was considered separately
Smoking prevalence

- Different trends for men and women: men prevalence is decreasing, while women is increasing
- Women prevalence is still lower than men’s
**OR of smoking over the years**

Adjusted OR* of smoking for each survey

<table>
<thead>
<tr>
<th>Survey</th>
<th>Men</th>
<th>Women</th>
</tr>
</thead>
<tbody>
<tr>
<td>1987</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>1995</td>
<td>0.76 (0.72, 0.8)</td>
<td>1.08 (0.98, 1.18)</td>
</tr>
<tr>
<td>1998</td>
<td>0.77 (0.74, 0.81)</td>
<td>1.21 (1.11, 1.33)</td>
</tr>
<tr>
<td>2005</td>
<td>0.62 (0.59, 0.66)</td>
<td>1.17 (1.05, 1.30)</td>
</tr>
</tbody>
</table>

* Adjusted for: year, age group, education, marital status, occupation – professions, region by logistic regression
OR of smoking (age and marital status)

Legend
Ref. – reference class
Divor - Divorced
Men
Women

* Adjusted for: year, education, marital status, occupation – professions, region by logistic regression
** Reference class
OR of smoking (education and occupation-profession)

* Adjusted for: year, education, marital status, occupation – professions, region by logistic regression
** Reference class
OR of smoking according to Region

<table>
<thead>
<tr>
<th>Region</th>
<th>Adjusted OR *</th>
</tr>
</thead>
<tbody>
<tr>
<td>Men</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1.33 (1.26, 1.4)</td>
</tr>
<tr>
<td></td>
<td>1.92 (1.8, 2.04)</td>
</tr>
<tr>
<td></td>
<td>1.72 (1.61, 1.83)</td>
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<tr>
<td></td>
<td>1.44 (1.36, 1.51)</td>
</tr>
<tr>
<td>Women</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2.10 (1.91, 2.31)</td>
</tr>
<tr>
<td></td>
<td>1.90 (1.70, 2.13)</td>
</tr>
<tr>
<td></td>
<td>1.31 (1.16, 1.48)</td>
</tr>
</tbody>
</table>

* Adjusted for: year, education, marital status, occupation – professions, region by logistic regression
Discussion

• Men and women have different evolutions in smoking prevalence

• Highest tobacco consumption categories (that differ between gender):
  – Education: Lower for men and higher for women
  – Professional group: Less qualified for men and more qualified for women
  – Region: Alentejo for men and Lisbon for women

• Highest tobacco consumption categories (similar between gender):
  – Age: Younger (even though women have a larger effect)
  – Marital status: Divorced
  – Professional status: Unemployed

• Study limitations
Conclusion

• Smoking prevalence and socio-demographic characteristics
  – Differ between men and women as expected by the epidemic model and previous studies;
  – For women, educational status seems to be associated differently than in other countries: higher educated and more qualified have an higher risk

• Preventive strategies should be adapted:
  – Targeting more deprived groups among men and more affluent among women;

• Ex-smokers should be studied to understand differential characteristics that led to smoking cessation.
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Thank you

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