COST-BENEFITS ANALYSIS OF
THE ITALIAN MINISTRY OF HEALTH STRATEGY ON SMOKING

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PURPOSE

To evaluate, in cost-benefits terms, the anti-tobacco strategy carried out by the Italian Ministry of Health. The model estimates the loss in productivity and the health costs related to smoking, in order to put in evidence the savings, in terms of total costs, gainable through the application of the actions connected with the Ministry’s strategy.

METHODS

- The analysis has been carried out through the application of the SAMMEEC model, adapting it to the Italian situation
- The estimates have been calculated for the years 2008 and 2010
- Three different scenarios for relative reduction of smoking consumption:
  -2.4% (worst-case analysis)
  -3.1% (intermediate-case analysis)
  -3.8% (best-case analysis)
- The model is based on the calculus of some indexes through which have been estimated:
  Years of Potential Life Lost
  Smoking Attributable Medical Expenditures
  Smoking-Attributable Productivity Loss
  Smoking-Attributable Total Costs

HYPOTHESES

- About the costs for hospital care this study consider only the Average Cost for Admission, equal to 2,600 €/admission (Source: Istat), constant in the years under analysis.
- Besides, has been considered an Average GNP pro capite equal to 26,000 €/year for the estimate of the future Productivity Loss (Source: Eurispe); this value does not take into consideration the Productivity Loss due to absenteeism from work during the smokers’ life.
- The Years of Potential Life Loss for each year have been calculated by multiplying the total mortality by the Remaining Life Expectancy, equal to 13 years (Peto, Lopez et al.)
- The accuracy of our methodology has been proved through the application of the equations on the data relative to 1995, 2000 and 2004.

RESULTS

<table>
<thead>
<tr>
<th></th>
<th>Years of Potential Life Lost</th>
<th>Smoking Attributable Medical Expenditures</th>
<th>Smoking-Attributable Productivity Loss</th>
<th>Smoking-Attributable Total Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008 1.0 Pu</td>
<td>1,201,738</td>
<td>2,951,383</td>
<td>2,372,251</td>
<td>6,525,364</td>
</tr>
<tr>
<td>2008 0.9 Pu</td>
<td>1,151,580</td>
<td>2,871,299</td>
<td>2,340,400</td>
<td>6,363,279</td>
</tr>
<tr>
<td>2008 0.8 Pu</td>
<td>1,101,424</td>
<td>2,801,219</td>
<td>2,308,546</td>
<td>6,202,189</td>
</tr>
<tr>
<td>2008 0.7 Pu</td>
<td>1,051,269</td>
<td>2,731,140</td>
<td>2,276,692</td>
<td>5,940,081</td>
</tr>
<tr>
<td>2019 1.0 Pu</td>
<td>1,200,730</td>
<td>2,948,383</td>
<td>2,371,253</td>
<td>6,522,366</td>
</tr>
<tr>
<td>2019 0.9 Pu</td>
<td>1,150,580</td>
<td>2,870,292</td>
<td>2,339,400</td>
<td>6,358,179</td>
</tr>
<tr>
<td>2019 0.8 Pu</td>
<td>1,100,425</td>
<td>2,800,218</td>
<td>2,307,536</td>
<td>6,196,080</td>
</tr>
<tr>
<td>2019 0.7 Pu</td>
<td>1,050,270</td>
<td>2,730,141</td>
<td>2,275,681</td>
<td>5,934,081</td>
</tr>
</tbody>
</table>

The results show the necessity of an effective anti-tobacco strategy guided by the Ministry of Health, which could greatly reduce the weight on the economy of our nation.

The estimates, compared with those relative to 2004, indicate a possible total saving between 750 million and 1 million euro in the short period (2008), while in the long period (2010) it’s possible to obtain a cost reduction up to 1.360 millions euro.

Even in correspondence of the worst-case analysis, there is a great reduction of total costs!

CONCLUSIONS

The costs sustained by the Ministry of Health in its struggle against smoking are not significant.

In fact, the majority of the actions carried out are no-cost actions, in accordance with the classification made by the World Health Organization:

- **NO COST ACTIONS**
  - Smoking Ban
  - Cigarette Price Increase

- **COSTS SUFFERED BY THE ITALIAN MINISTRY OF HEALTH**
  - Communication campaign planning
  - Creation of anti-tobacco centers

Although the amount of expenditure for the institution of anti-tobacco centers is still unknown, we can affirm that the policy of the anti-tobacco’s struggle carried out by the Ministry of Health is not at all expensive, especially when considering the gainable savings.

So, the anti-tobacco strategy of the Ministry of Health is absolutely cost-effective, since the expenditures suffered in order to achieve the objective produce an economic advantage, both in the short and in the long period.