

Socioeconomic costs of asthma

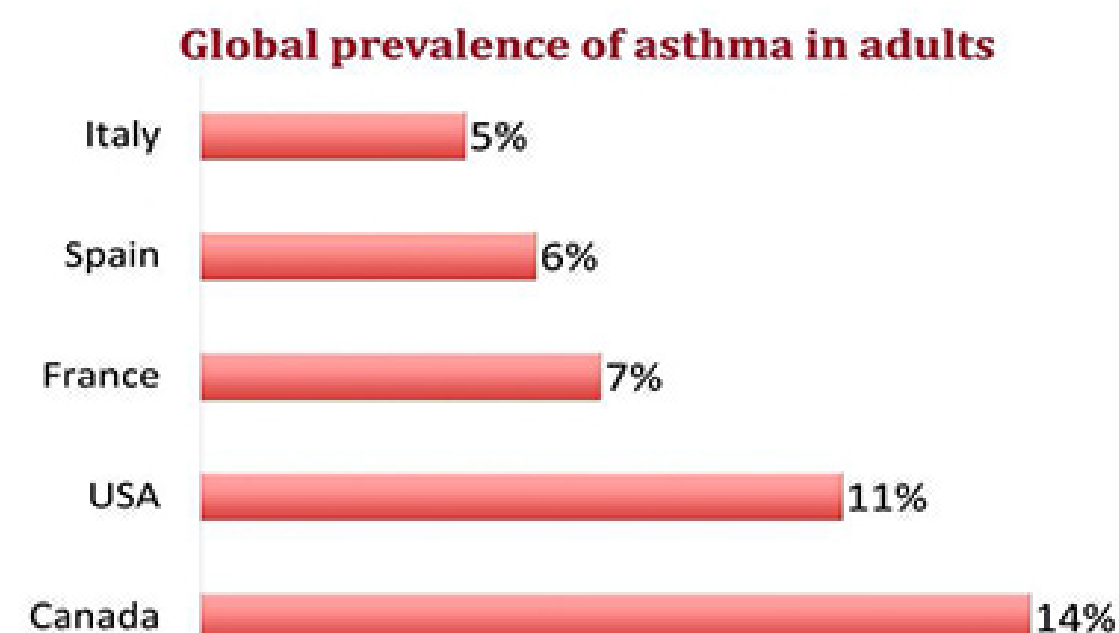
Empirical evidence for the European Union, United States and Canada

Natàlia Pascual¹, Jaume Puig-Junoy¹

¹Centre for Research in Health and Economics (CRES), Pompeu Fabra University

OBJECTIVE

To conduct a comprehensive systematic review of studies about the cost of asthma and to analyze the main causes of the high heterogeneity in the cost estimates, with special reference to the influence of severity and disease control.



6.479 titles and abstracts identified

50 duplicates excluded

6.429 potential titles and abstracts

6.401 excluded (criteria)

28 selected for evaluation

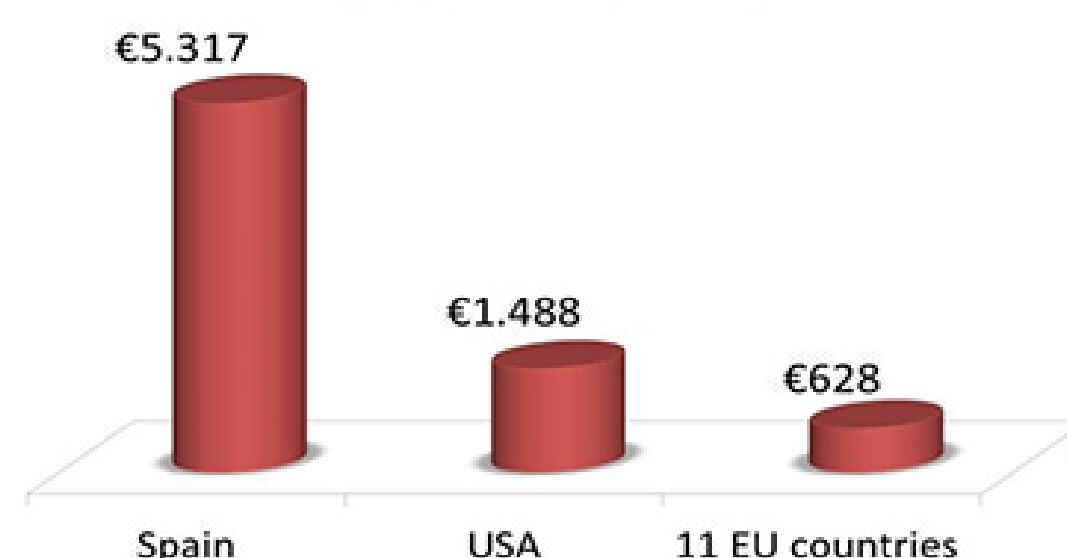
DATA AND METHODS

Systematic review of original cost-of-asthma studies published in English and Spanish, between January 2004 and December 2014 and indexed in *PubMed*, *IBEC* and *IME*. Studies for the United States, Canada and countries from the European Union. We estimated the annual cost of 2013 in Euros by applying the GDP deflator for each country.

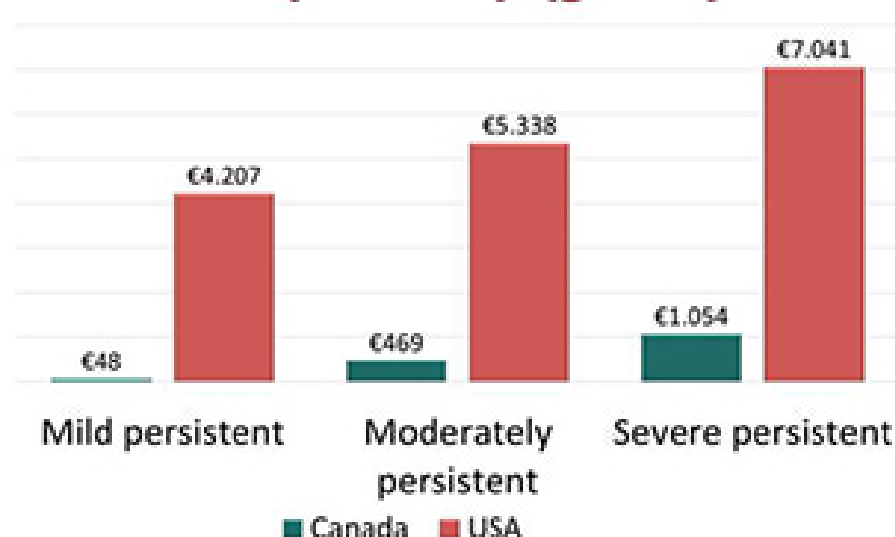
RESULTS

- ✗ 20 studies apply a social perspective
- ✗ 6 studies estimate the total cost of asthma patients
- ✗ 22 studies estimate the incremental cost of asthma
- ✗ 10 studies estimate the incremental cost of asthma with a control group (none of them referred to EU countries) and only 4 can be considered evidence of high quality by combining a cohort of peers ("matched control") with regression models

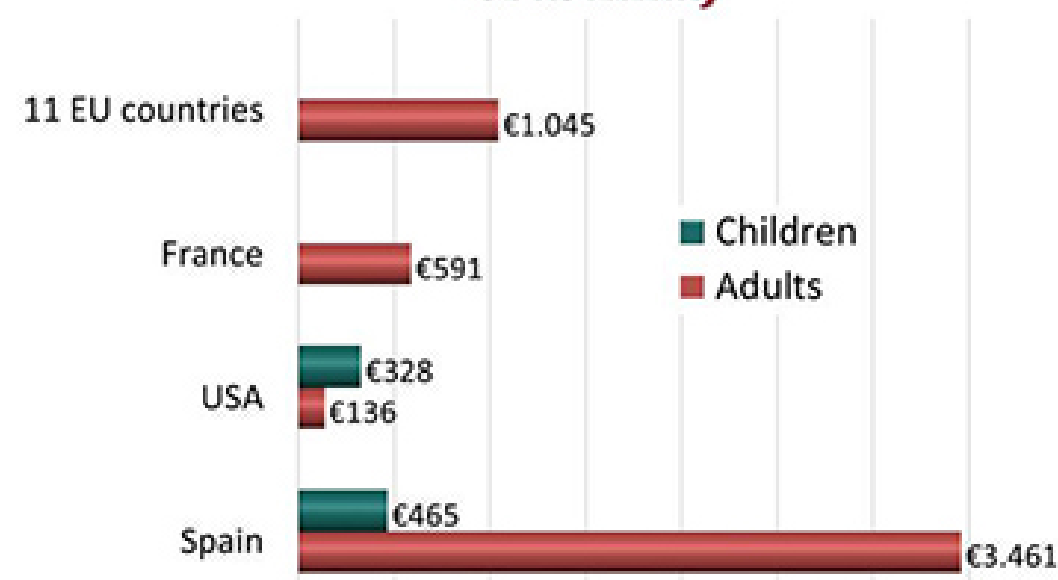
Incremental healthcare costs of asthma per patient (adults)



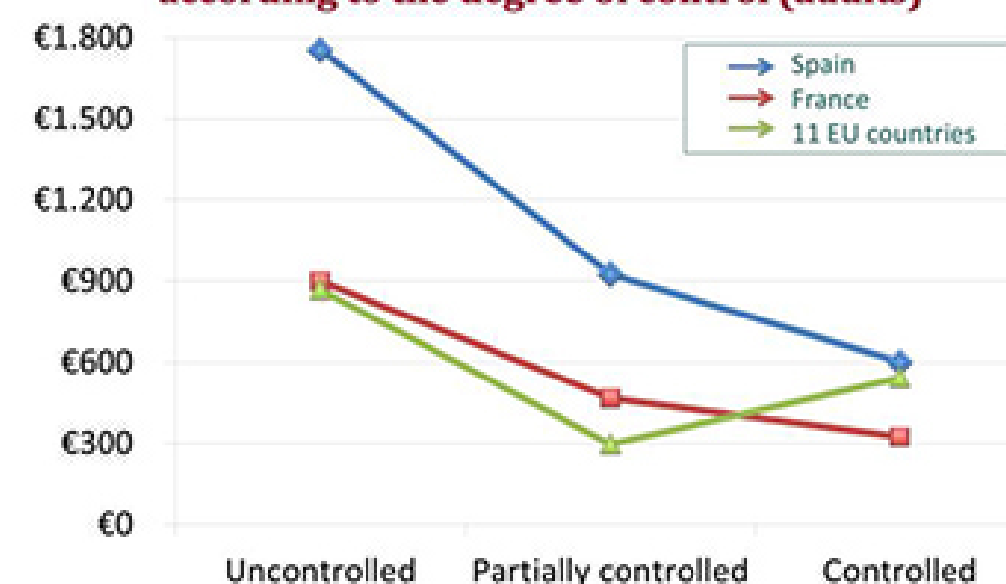
Incremental healthcare costs of asthma by severity (global)



Non healthcare costs (incremental costs of asthma)



Incremental healthcare costs of asthma according to the degree of control (adults)



CONCLUSIONS

The social cost of asthma is around 0.08% of GDP in the EU countries. The incremental cost per asthmatic patient grows very quickly with severity and decreases with the degree of control. There is a growing concern about the social cost (including indirect costs). Compared to adults, children show a different cost pattern that should be addressed accordingly by policy makers.