



# Social and economic burden of chronic diseases in Bulgaria - a case with multiple sclerosis and asthma

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## INTRODUCTION

The aging population in Europe is a main reason for high burden of chronic disease and healthcare costs growth. Implementation of National Prophylactic Programs could prevent earlier chronic diseases spread.

## METHODS

❖ A **retrospective analysis** was performed based on real-world data for two groups of patients with highly prevalent and socially significant chronic diseases in Bulgaria: **asthma and multiple sclerosis (MS)**.

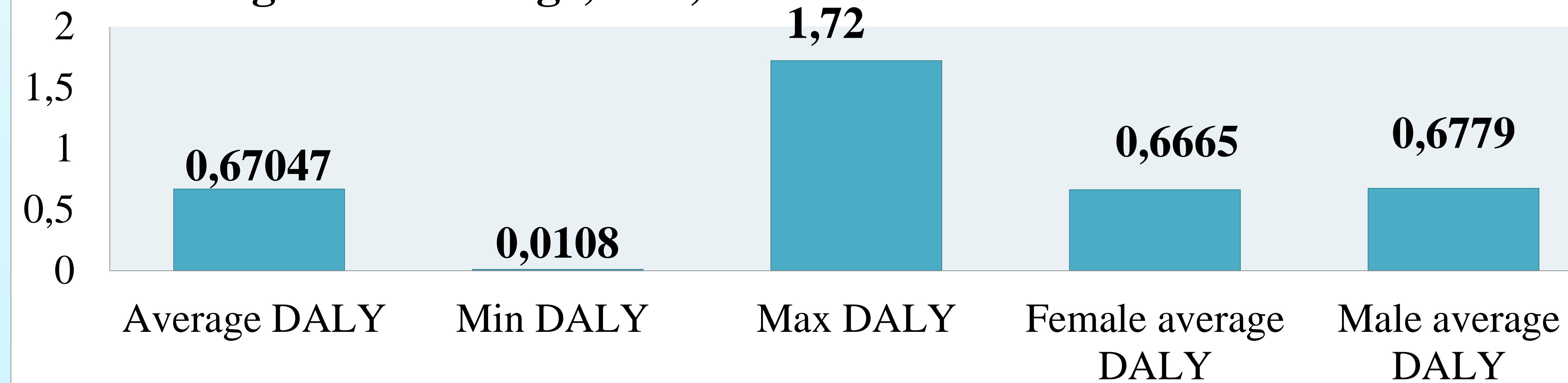
❖ *On total 68 patients with asthma and 230 with MS were included in the analysis.*

❖ *Disability weights for asthma and MS were assumed from WHO methodology and DALYs were calculated*

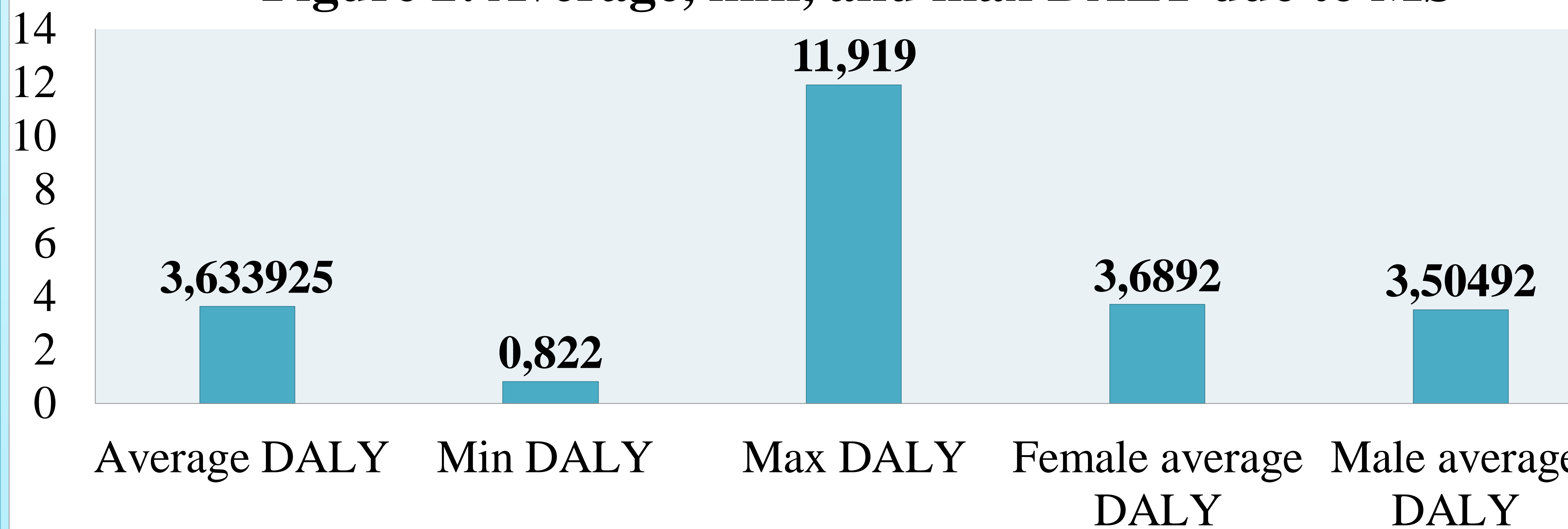
❖ The indirect costs were calculated using the mean Gross Domestic Product (GDP) per capita for the period 2009-2019.

## RESULTS

**Figure 1: Average, min, and max DALY due to an asthma**



**Figure 2: Average, min, and max DALY due to MS**



	Asthma patients	MS patients
<b>Average indirect cost, euro</b>	4030	23267.03
<b>Min - max indirect cost, euro</b>	68.8293 - 11012.69	5263.04 76314.1
<b>Average period of diagnostics, years</b>	14.93	8.84
<b>Female / male average indirect cost, euro</b>	4267/ 4340	23621/22441

## CONCLUSIONS

The current study revealed a high indirect costs thus illustrating the high economic burden of asthma and MS in Bulgaria. Overall health of chronic patients could be affected by the low incomes, the lack of prevention programs and delayed time to diagnosis.

## KEY MESSAGES

The costs for outpatient and inpatient treatment of asthma and MS represent significant burden and high level of public and household expenditure in Bulgaria.

The study finds high value of indirect costs per patient, if taking into consideration the number of concerned population with asthma and MS in the country.