**Background**

- Breast cancer (BC) is the most common cancer in women and the 2nd most common cancer in the general population worldwide and in Portugal.  
- BC is the leading cause of cancer death in women in less developed regions and the second cause of cancer death in developed countries.  
- Although BC represents an important cause of mortality and morbidity its burden has not been quantified in Portugal.

**Aims**

- This study estimates the Disability Adjusted Life-Years (DALY) lost due to female BC during 2014 in Portugal.

**Materials and methods**

- **DALY** is the unit measure of disease burden. This indicator combines the years of potential life lost due to premature mortality (YLL) and the years of healthy life lost due to disability (YLD).
- The YLL refer to the number of deaths multiplied by the socially weighted and discounted life expectancy at the age at which death occurs using a standardized life table.
- YLD were estimated based on data from Statistics Portugal for the distribution of mortality by age and cause.
- BC mortality was assumed to be the same as 2013: 1,646 cases.
- BC episodes were identified in the 2014 DRG database. Hospital deaths in the same year of BC surgical treatment were identified. This mortality was attributed to non-metastatic patients.
- In order to estimate YLD in a particular period of time, the number of incident cases in that period is multiplied by the adjusted average duration of the disease. The duration is weighted by coefficient reflecting the severity of the disease on a scale ranging from 0 (perfect health) to 1 (death).
- **BC overall incidence in 2014 was estimated based on the Portuguese South Region Cancer Register 2013 (ROR-SUL) and on the relation between ROR-SUL and National Cancer Register data from 2003 to 2009.** In order to capture the disease heterogeneity, incidence was divided in 5 groups following 5 different pathways as in Kruijshak and Barendregt (2004).

![Figure 1: Scheme of the YLD model.](image)

**Results**

**Years of Life Lost (YLL)**

- A total of 1,646 deaths were caused by BC.
- Metastatic disease accounted for 98% of all BC deaths.
- BC mortality accounted for 3.2% of total female mortality.
- The estimated YLL sum to 13,425, representing 6.2% of the total years of life lost for all female deaths (Figure 2).

![Figure 2: YLD due to BC by age group.](image)

**Overall disease burden**

- The global burden of BC was estimated to be 23,092 DALY, with 15,398 associated to metastatic disease (Table 1).
- YLD represented 58% of the total DALY, underlining the impact of this disease in terms of disability.

**Conclusions**

- **BC** is an important cause of disease burden, accountable for 23,092 DALY. The majority of BC burden is due to metastatic disease and the burden due to mortality falls mostly on metastatic patients.
- The size of the burden suggests that BC should receive appropriate attention from policy makers.

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**References**